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Teacher Personnel

Reviews the literature in this area for the three-year period since the issuance of Volume XXII, No. 3, June 1952.

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INTRODUCTION

THIS issue of the REVIEW continues the traditional periodical examination of research relative to teacher personnel. The organization of this issue is somewhat different from that of previous issues in this series: An attempt has been made to provide integrated treatments of the research relating to broad areas, as will become apparent upon inspection of the Table of Contents. This form of organization imposed unusual burdens upon the chapter authors, since each was responsible for a larger area of research than has been true previously, and each had the additional task of trying to integrate the research findings in his area. The authors are to be commended for their interest in this enterprise.

If the research during the last three years were to be wiped out in the fields of medicine, agriculture, physics, or chemistry, our lives would be materially changed. If research in the area of teacher personnel during the last three years should vanish, education and educators would continue much as usual. There are relatively few studies among the some 500 reported here which will, or should, widely affect educational practice.

There are perhaps two reasons for this state of affairs. In recent years it has been the style to emphasize the need for cooperative and coordinated effort in research of all kinds, and surely many of the defects in current educational research can be ascribed to the fragmentary, partial, and sporadic approaches necessitated by the limited resources of one individual, or even of one institution. There can be little doubt that educational research would benefit by cooperative effort on a scale not heretofore realized.

This truism should not be permitted to obscure the fact that one-man research may also have great value. Perhaps a difficulty even more basic than lack of cooperative effort is the fact that educators are desperately in need of one-man research of a certain kind: We still await a Copernicus to simplify our explanations; a Newton to postulate a few major principles upon which a whole conceptualization may rest—at least for a time; a Mendeleev to order masses of apparently unrelated data; a Descartes, a Leibnitz, a Fisher, to provide us with mathematical models of reality as we see it, models constructed especially for our work, and not necessarily for other disciplines. Such one-man research still remains to be done.

In any case, we can do only the best we can; the best we have done in the past three years is summarized here.

TOM ARTHUR LAMKE, *Chairman*
Committee on Teacher Personnel

CHAPTER I

Teacher Certification, Supply, and Demand

ROBERT C. WOELLNER*

THREE factors in the area of teacher personnel are intimately related: the kind and amount of training required for entrance into the teaching profession, public opinion of teaching, and the supply of teachers. High standards of certification and no greater supply of trained teachers than can comfortably serve the nation help create favorable public opinion; favorable public opinion attracts candidates to the profession. Low or misunderstood standards of certification and too large or too small a supply in relation to demand are factors in creating unfavorable opinion of teaching as a profession. A discussion in *Midland Schools* (42) emphasizes these relationships.

The following statements are based on a review of the published reports relating to the supply and certification of, and the demand for, pre-collegiate teachers; college teachers are dealt with elsewhere in this issue. These reports were disclosed thru the usual sources and thru an inquiry addressed to a large number of educators whose responsibilities acquaint them with this phase of teacher personnel. The references fall naturally into two major groups. In the main, the one pertains to certification and the other to supply and demand. Subdivisions will become evident in the following paragraphs.

Certification

Historically, the authority to issue certificates entitling teachers to receive public funds for their services shifted from local to county and finally to state functionaries. With minor variations, the states thru their education officials are now the sole teacher certification authorities, and each state establishes the certification requirements for elementary- and secondary-school teachers within its own boundaries. Tho the state officials are the final authorities in interpreting their own certification regulations, attempts to present digests of such requirements have been made by Armstrong and Stinnett (8) and Woellner and Wood (85, 86, 87). Annual revisions of such digests are necessary because each year a number of states make major or minor changes in their certification requirements. Comparison of Woellner and Wood's 1953-54 edition (86) with the 1954-55 edition (87) reveals that 16 states changed their requirements, and of these, 11 made major changes. Until each state evolves its requirements to a degree that frequent changes are not made, these annual status studies will be necessary to insure accurate information for prospective

* Mr. Robert M. Hendrickson assisted in gathering data for this report.

teachers. The role of accreditation in promoting greater uniformity of standards was discussed by Pinkham (56), Stinnett (71), and Wardner (83).

Tendencies in the certification of teachers were well summarized in a study by Armstrong (6). The following is a paraphrase of a portion of his observations: (a) An increasing number of states require four years of college preparation for the certification of elementary-school teachers. In 1954 the total number with that requirement was 25, and five additional states had established deadlines after which degree requirements for elementary-school teachers must be met. (b) Forty-four states required a minimum of four years of college preparation for certification as a secondary-school teacher. (Of these, five states and the District of Columbia required five years.) (c) All states required certification for all education personnel in the public schools. (d) Practically all states issued certificates on the basis of transcripts of credit and recommendations of accredited training institutions. (e) Certification by examination was virtually a practice of the past. (f) The states relied heavily on the accreditation status of out-of-state institutions as evidence of the quality of their programs.

Status studies of the certification requirements for specialists in teaching and other educational positions allied to elementary- and secondary-school teaching also have been reported. Claytor (17) surveyed requirements for guidance workers in the 17 states having such certificates, and the Minnesota Education Association (45) reported Minnesota's plan for the voluntary certification of guidance counselors. The third quinquennial instalment in a continuation study of changes in certification requirements for physical education teachers was presented by Morehouse and Miller (46). They observed that the opportunity for progress toward uniformity has continued to be neglected; no two states have the same certification requirements. Three studies of certification standards for teachers of exceptional children were published. Mackie and Dunn (37) indicated that 32 states and the District of Columbia issue special certificates for teachers of various kinds of exceptional children. Such certificates are most often available for speech correction and the teaching of hard-of-hearing, crippled, mentally retarded, and partially seeing children. It is worthy of note that only one state has a special certificate for teachers of the gifted. Certification of teachers of partially seeing children was investigated by Young (89), and Rothstein (63) explored requirements for teachers of the mentally retarded. Problems in certifying private music teachers were treated by Krongard (34) and Rauh (58). Pruitt (57) provided a summary of certification requirements as they affect elementary- and secondary-school science teachers. Practices in the certification of supervisors were summarized and evaluated by Richard (60). Reynolds (59) proposed that a special certificate be established which would identify the superior teacher.

During the past few years there have appeared some vigorous attacks upon certification requirements in general and education courses in particular. Important among these are Lynd's *Quackery in the Public Schools* (35) and Bestor's *Educational Wastelands* (11). That these charges have not passed unnoticed is evidenced by the many articles written in refutation. Typical of such work is "Charge Dismissed" by Kinney (31). A somewhat more detailed rebuttal was given by Hand and Sanford (29). The most important answer to these attacks, however, is the serious effort of professional groups and individuals to study the basis for the certification of teachers. Space permits reference to only a few of these. Reports of the 1953 Miami Beach Conference of the National Commission on Teacher Education and Professional Standards (44, 48) described an attempt to review the present status of certification and to determine what improvements should be made. Stone (72) recommended an activity analysis to improve certification requirements. Klain (32) reported a questionnaire study of the extent to which educators believe teacher certification should require work beyond the traditional four-year program. He found that a considerable number favored a fifth year, particularly for secondary-school teachers. Armstrong (5) raised some fundamental questions about the philosophy of certification and accreditation. Upgrading of teacher education and certification thru organizational procedures was dealt with by Bixler (12). Albrecht (4) reported a survey of opinion concerning the adequacy of certification requirements in Ohio. Changes in Minnesota certification practices were described by Adams (2, 3). Simpson (66) indicated that teacher certification concerns everyone and gave a descriptive account of the certification activities of the State Department of Education of California. The need for changes in health education requirements for specialists in this area, as well as for all teachers, was reported by Haag (26, 27, 28). Bolton (13) raised some objections to the trend toward the "general" certificate. Stinnett (68) pointed out that, in order to improve teacher certification, educators need to decide upon and list the major competencies required for the profession in such a way as to eliminate present inconsistencies in professional requirements. Stout (74) emphasized that improvement in certification standards would increase teacher supply. Cooper (19) indicated that the issuance of temporary or emergency certificates results in a large number of poorly qualified teachers who lower the professional standing of teaching.

A study of emergency permit teachers in Indiana by Young, Eaton, and Phillips (90) showed that since 1944 the proportion of teachers teaching on emergency permits ranged between 8 percent and 13 percent, that the low point was in 1951-52, and that since that date there has been an upward trend. The majority of permits were issued to elementary-school teachers in township schools. Thirty-five percent of the total group did not have a bachelor's degree, and 13 percent had less than two years of college.

Oliva (55) maintained that the state-to-state variation in certification requirements accentuates the teacher shortage by hindering the geographical mobility of the supply. He pointed out special requirements in 10 states likely to restrict teaching positions to residents; he also contrasted the three semester hours of student teaching required for certification in Ohio with the six hours required in Connecticut, and the 27 hours of credit in general education required in Missouri with the 50 hours required in Oklahoma. The teacher shortage in Florida, according to Bailey (9), provides additional evidence for the need for agreement between states on common certification requirements. White (84) argued that the appointment of teachers-aids will help in maintaining high standards of teacher performance during periods of shortage. General policies of teacher certification were dealt with by the National Commission on Teacher Education and Professional Standards (50) and by Stinnett (70). The part liberal arts colleges can play in resolving the conflict between general and professional training for teachers was considered by Ten Hoor (76). Curtin (20) discussed the education of teachers in Massachusetts as it relates to the new certification program in that state. An article by Grace (25) outlined an entire program of selecting, preparing, certifying, and placing teachers and is an excellent summary of the total problem of which certification is only a part.

Supply and Demand

During the period which is under review in this publication, the shortage of teachers has become a major problem if not the major problem of education. Much has been written on this subject. In an examination of sources, 77 articles were identified which reported supposedly factual data on supply, demand, or both, as they relate to elementary- and secondary-school teachers. Space limitations prevent giving all of these the comments which they individually deserve; in reporting the studies, references can be made only to some of the most typical. Nor is it possible to discuss the relative merits of these research contributions. The studies are organized in the following categories: (a) current status of teacher supply and demand, (b) future status of teacher supply and demand, (c) causes of and remedies for the teacher shortage, (d) teacher supply and demand problems of special groups, and (e) bibliographies of research in teacher supply and demand.

Current Status of Teacher Supply and Demand

Since the school year 1947-48 when the marked uptrend in enrolments in the elementary schools first started, much publicity has been given to the need for more teachers at the elementary level. The number of live births in 1953, approaching 4 million, established a new record; the 1954 figure is of the same magnitude. It is clear that for more than a decade elementary-school enrolments will continue to be high, even if births

should drop off sharply in 1955. Comprehensive studies of teacher supply and demand in the United States have been provided by Maul (41) and by the NEA Research Division (52, 53). New developments with respect to the teacher shortage are discussed in the latter reports; they include the following: (a) The number of pupils of high-school age is now beginning to increase. (b) There has recently been a marked drop in the number of degree graduates with the preparation required to enter high-school teaching, with drops of over 50 percent from 1950 to 1954 reported in agriculture, mathematics, social science, men's physical education, industrial arts, and science. (c) A study of 13 states showed that of the college graduates of 1953 formally prepared for high-school teaching, only 53 percent were actually teaching in high school their first year out of college. (d) As the potential supply of high-school teachers falls below actual demand, the excess supply of former years will no longer be available for "conversion" into elementary-school teachers, thus further aggravating the shortage. (e) It is known that the present sophomore and junior-college classes are smaller than those of preceding years, so that 1955 and 1956 will see even fewer qualified high-school teaching candidates.

There were many studies of supply and demand at the state level. Fourteen studies were located; the one for Michigan (81) is cited because it is typical and is also one of an annual series which was begun prior to World War II. The supply of teachers at local and regional levels has been reported upon by Bartels (10) and Travers (78). Many teacher placement offices in institutions of higher learning prepare and distribute annual reports which reflect the relation of supply to demand; the report of Indiana University (30) is typical. Twelve studies of teacher supply and demand in special fields (health, mathematics, etc.) were reviewed; typical of these reports are those by Maul (39) and Woodward (88).

Future Status of Teacher Supply and Demand

The publication of a projection of school enrolment by the U. S. Bureau of the Census (80) is symptomatic of the intimate relationship between population growth and future demand for teachers. Estimates were presented for an increase of some 4 percent a year in elementary-school enrolment from 1955 thru 1959, when the percentage of predicted increase rapidly drops off and finally becomes a small decrease (as compared with the preceding year) in 1962. The predicted yearly increase in high-school enrolment fluctuates between 3 and 7 percent from 1955 thru 1964. The predicted total elementary- and high-school enrolment in 1965 is approximately 30 percent more than that in 1954, and approximately 50 percent more than that in 1950. An estimate of the yearly demand for teachers thru 1960 was presented by the NEA Research Division (54). Zitter (91) gave a general description of some of the most common technics used in projecting school enrolment at the state and local levels.

Causes of and Remedies for the Teacher Shortage

In studying the imbalance of teacher supply and demand, it is pertinent to consider both population changes and the socio-economic factors that influence the proportion of the available manpower which enters a given vocation. Richey (61) emphasized the implications of population change for education. McGrath (36) pointed out that, because of the low birth rate in the 1930's, the supply of manpower of college age from which to draw the new members of all vocations is smaller than in any recent decade and is likely to be smaller than in any decade in the foreseeable future. Factors that determine what proportion of the available manpower will enter a given vocation are many and complex. Maul (38) pointed out that increasing competition from business and the armed services has led to a decreasing number of male teachers. Claytor (18) cited the multiplicity of state certification requirements as a deterring effect on choice of teaching as an occupation. Richey, Phillips, and Fox (62) revealed that high-school students have generally unfavorable attitudes toward teaching as a career. McGrath (36) pointed out that increasingly high percentages of those preparing to teach do not actually enter the profession. He also showed that the proportion of those in the teaching profession who must be replaced annually because of death, marriage, and entrance into other occupations increased from approximately 5 percent before World War II to more than 10 percent.

Trump (79) analyzed the scope and nature of the problem of teacher shortage. Conferences sponsored by the National Commission on Teacher Education and Professional Standards (49, 51) resulted in suggestions for dealing with this problem. McGrath (36) discussed four questions that must be considered in any plan to alleviate the teacher shortage: (a) Who shall be permitted to teach? (b) What institutions shall prepare teachers? (c) What professional status is to be accorded teachers? (d) How attractive salary-wise must teaching be made? The National Citizens Commission for the Public Schools (47) published a handbook intended to provide guidance toward the alleviation of the teacher shortage. Further suggestions of this kind were offered by Aarestad (1), Armstrong (7), Maul (40), and Simpson (65).

Gibson (24), Miller (43), and Stumpf (75) discussed teacher recruitment and ways in which teacher recruitment practices might be improved to tap a larger supply. The raising of professional standards was suggested by Booker (14), Sharp (64), and Stinnett (69). Brazzle (15) emphasized again the need for salary increases. Stone (73) proposed that a better coordination of placement agencies and the state departments of education would assist in placing persons in appropriate teaching positions. Ebey and Brunskill (22) and Snarr and others (67) discussed conversion programs as a means of increasing the supply of elementary-school teachers.

The National Commission on Teacher Education and Professional Standards (51) suggested remedies under two headings: (a) attracting

and holding a greater number of qualified teachers, and (b) extending the services of qualified teachers to more children. Fourteen suggestions were made under the first heading and 10 under the second; however, no estimate was made of the yields to be expected should the suggestions be carried out, nor was machinery set up to implement them. An action which will help relieve the teacher shortage by making possible the freer flow of the available supply was taken by Kentucky when it extended certificate reciprocity to all states (21).

Teacher Supply and Demand Problems of Special Groups

Surveys were made of the supply and demand situation as it affects such special groups as Catholics (16), Lutherans (33), and Negroes (77). The last-named group quite naturally raised the question as to whether or not their teachers will be replaced by white teachers as a result of desegregation.

Bibliographies of Research in Teacher Supply and Demand

Eliassen (23) and Vesey and Anderson (82) seem to be the chief compilers of references on teacher recruitment, supply, and demand. Their most recent discussions of research in this area are valuable contributions to the profession. The need for further research is obvious; some suggestions may be found in the report of the National Commission on Teacher Education and Professional Standards (51).

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CHAPTER II

Recruitment, Guidance, and Screening of Prospective Elementary- and Secondary-School Teachers

HOWARD S. BRETSCH and GENE S. JACOBSEN

A REVIEW of the literature on recruitment, guidance, and screening of prospective teachers reveals: (a) that the amount of basic research is meager; (b) that research on teacher recruitment is based largely upon the opinions of students and the experiences of those responsible for recruiting teachers; and (c) that identification of factors useful in guidance and screening has been difficult because of lack of agreement as to what constitutes teaching success. In order to present a fair sample of the efforts in these areas, surveys as well as basic research studies have been included.

Recruitment and Guidance

Those concerned with the recruitment of teachers find it useful to know the attitudes and opinions of those they are trying to interest in teaching. In a sampling study of Indiana high-school students, Richey, Phillips, and Fox (29) found that 45 percent of the total group rated teaching no more desirable than other occupations requiring the same amount of training, and 52 percent of those who definitely did not plan to teach considered teaching less desirable than other such occupations. Only 4 percent of the students who expected to attend college were quite sure they would become teachers; another 11 percent thought they probably would teach. The major reasons cited for not wanting to teach were preference for other work, lack of interest in teaching, and lack of ability for teaching. Considerable agreement existed among all the students regarding the advantages of teaching as an occupation: opportunity to work with young people, opportunity for service, interesting and enjoyable work, and opportunity for intellectual development. Foremost among the disadvantages cited were low salaries and little chance for improvement.

Willcox and Beigel (40) suggested that stereotypes, such as "desire to help society" or "teaching is essential work," should not always be accepted as the actual reasons for choosing teaching as an occupation, and that the choice is frequently made because of emotional needs.

Ringness (30) indicated that students' attitudes toward the profession were important in their success in the profession. A factor analysis of the interests of men and women who had chosen to teach showed somewhat different results in the two cases; however, interests in working conditions, in people, and in subjectmatter seem to have been generally emphasized. In terms of raw scores, men placed interest in subjectmatter

first and service to society second; women reversed this order. Using autobiographical material, Ringness found interest in teaching centered largely in subjectmatter areas; the interest was acquired at a relatively early age and had been stimulated by parents or by particularly good teachers.

La Bue (22) studied the differences between students who had applied for admission to a program of teacher preparation and later dropped out, and those who had continued in the program. On an open-ended questionnaire administered at the time of application for admission, 42 percent of the women in the persistent group said they had chosen teaching because they wished to serve society, whereas only 22 percent gave this response in the nonpersistent group. A larger number of the latter than of the former rated interest in children and young people as an important factor in their choice. Men in the persistent group differed from those in the nonpersistent group in that 48 percent of the latter thought opportunity to work in an academic field an important factor in their choice; only 25 percent of the former group rated this factor important.

Bancroft's study (4) of 1583 teachers-college freshmen showed that a majority of the students had a clear understanding of their goals for teaching but were generally uninformed about teachers' salaries. From Bancroft's study one may infer that the factors important in making a decision to teach are more closely related to intrinsic motivations than to external "campaign" type pressures. Richey, Phillips, and Fox (29) likewise found a considerable amount of confusion in regard to the salaries of beginning teachers; those who did not plan to teach had a tendency to underestimate such salaries; on the other hand all students tended to overestimate the salaries of experienced teachers.

Kropp and Lastinger (20) asked college freshmen in an orientation course what aspects of the profession had attracted them most as they made their decision to become teachers. Twenty-nine percent cited the security they thought teaching afforded; 27 percent were attracted by the possibility of social service. Forty-five percent of the group thought that low salaries deterred people from entering the profession. Johnston (18) found that high-school students in Illinois rated the opportunities to work with children, to work in academic subject fields, and to serve society among the most desirable aspects of teaching.

Additional research bearing on the attitudes of various groups toward the teaching profession may be found in Chapter V.

Other Factors Pertinent to Recruitment

Richey, Phillips, and Fox (29) reported that almost half of the high-school students who had decided to become teachers and slightly more than half of those who would probably become teachers had made their decisions in the junior or senior year. Seventeen percent of those who definitely planned to teach said they had always wanted to teach. The investigators made cross sections of their subjects with respect to type of community and also with respect to parents' incomes. In this study neither

parents' incomes nor place of residence appeared to have much effect on the students' decisions to become teachers. Additional evidence concerning the backgrounds of those entering the teaching profession may be found in Chapter V.

Aikman and Ostreicher (1) and Graham (14) obtained criticisms of teacher-education programs from teachers and from education students. Results of both these studies suggested that recruitment could be facilitated by eliminating causes for the dissatisfactions expressed. Quanbeck's study (28), which showed that in the group examined, two-thirds of those prepared for high-school teaching never taught, placed grave responsibility upon the teacher-education institutions to improve their programs and methods of selection and guidance. Bowdoin (6) emphasized the need for the cooperative efforts of educators in recruiting teachers.

The American Association of University Women (3) found in its unstructured open-ended study that married women who are college graduates may be induced to take courses preparing them to serve in the classroom if personal encouragement, advice, and further training are accessible. Ebey and Brunskill's study (10) of the effectiveness of a conversion program in Oregon showed that the transition from high-school to elementary-school teaching can be made successfully under the right conditions. Altho such an arrangement does not bring additional persons into the profession, it helps provide useful flexibility in dealing with the teacher shortage. The possibility of recruiting college graduates who have had no work in professional education courses and providing them with a standard fifth year of professional training is one implication of the Ford Foundation-Arkansas experiment (7). According to West (39), experience in other occupations is a factor in convincing some that they should be teachers.

Role of the School in Recruiting Teachers

Some would hold that one responsibility of the school is to interest persons in teaching several years before they must choose a career. However, Richey, Phillips, and Fox (29) found that parents exerted by far the greatest amount of influence upon Indiana high-school students as the latter selected an occupation. Over half of the students indicated that they had received little or no help from teachers in this regard, but students who planned to teach found teachers more helpful than those who did not plan to teach. Twenty-seven percent of the college freshmen studied by Kropp and Lastinger (20) said teachers had been the most important influence in their choice of teaching as a career; 23 percent mentioned parents.

Frantz (12) developed and evaluated a program for teacher recruitment in a Pennsylvania high school. As a result larger numbers of students planned to teach than formerly had been the case. Frantz's study implied

that, if each teacher assumed his share of the responsibility, an adequate number of qualified teachers could be recruited.

On the basis of a questionnaire study with a 68-percent return, Crum (8) stated that about 40 percent of Indiana high schools have some form of exploratory teaching program, most for an hour or two a day; about half of these allow some high-school credit. The probable value of such a program is indicated by Richey, Phillips, and Fox's report (29) of a positive relationship between the amount of experience of a teaching nature that a student had and his selection of teaching as a career, as well as by Kish's report (19) that high-school students who had engaged in cadet teaching reacted very favorably to it and considered it to be of definite help to them in deciding to become teachers. Schwartz (34) described the joint endeavors of 36 Iowa colleges and universities to cooperate with the public schools in the recruitment of teachers. A "prospective-teacher" day was held annually, with students from the public schools visiting teacher-education programs in their vicinity. Johnston (18) reported that Illinois high-school seniors thought Future Teachers of America clubs the most important factor in recruiting; observation and participation came next, followed by individual counseling.

Recommendations for Recruitment and Guidance

As a result of the Miami Beach Conference sponsored by the National Commission on Teacher Education and Professional Standards (25), the following measures were suggested: (a) alert the public to the long-term problem; (b) encourage former teachers to return to the profession; (c) waive retirement, employment, and age limitations; (d) extend scholarship opportunities; (e) provide more opportunities for children and youth to choose teaching as a career; and (f) provide salaries and working conditions appropriate to professional service.

Maul (24) thought a substantially new approach to recruitment was needed. He identified these possible sources of teacher supply: former teachers, college graduates of any kind, returning veterans, college students pursuing other than education majors, recent high-school graduates, current high-school students, and current college graduates. He suggested that the specific reasons restraining these various groups from entering teaching are not the same in all groups; the reasons should be separately identified, analyzed, and removed as far as possible.

Bancroft (4) suggested: (a) that more men be recruited, since they tend to stay in the profession longer than women; (b) that to some extent psychological test scores be discounted and greater value placed on desire to teach, love of children, and interest in people; (c) that tests of sincerity toward teaching or surveys of attitudes toward teaching be developed as selective criteria; (d) that more time and effort be spent in providing visits to teacher-education institutions for high-school students; (e) that the time and money spent on recruitment be distributed among the various population and economic groups in the most productive

manner; and (f) that the reasons why teachers leave the profession and why young people do not enter it be identified since they may be different and require different treatment.

An annotated bibliography on teacher recruitment, supply, and demand, was provided by Eliassen (11).

Screening

In dealing with research on the effectiveness of screening technics, the authors were concerned mainly with reporting the results of the application of the technics. Research on the prediction of teaching success is treated in Chapter VII.

The fundamental problem in screening students before accepting them for admission to teacher education, or to the teaching profession, is to connect certain characteristics they possess at the time they seek entrance to later performance as teachers. Since the identification of teaching success is such a complex matter, it may be easier to rule out candidates on the basis of characteristics which are rather clearly causes of failure, than to select candidates who are likely to be notably successful.

Roth (31) reviewed the development of standards of admission to teacher education. Swartz (37) analyzed 795 basic references to discover: (a) whether discriminative selection of prospective teachers is a practical and desirable method of improving the professional status and efficiency of teachers, (b) whether valid criteria exist which will permit such selection, and (c) the extent to which the practice is now being carried on. He concluded: (a) that discriminative selection is highly desirable, (b) that its practicability is at present somewhat limited because of the small supply of teaching candidates, (c) that some valid criteria exist altho research technics are needed to define them more adequately, and (d) that discriminative selection has not operated extensively. He pointed out that experimental research to discover valid selective criteria has been hampered by inability to define and measure teaching efficiency or success. He suggested that, while many methods used for screening are undoubtedly valid, as they presently stand they are primarily useful for describing "generally superior" individuals rather than successful teachers as such.

Booker (5) asked 162 teachers, supervisors, and recent education graduates what personal characteristics should be prerequisite for entering a professional program of teacher preparation. Personality traits were ranked first; moral character and conduct, second; love of people and desire to teach, next. Scholastic ability was ranked sixth; speech and English usage, eighth; and emotional maturity and stability, ninth and last.

Olson (26) surveyed the policies and practices in the selection of candidates for the teaching profession in colleges and universities in the North Central Association. The following criteria were used by a majority of the institutions he contacted: scholarship records, prescribed high-school sub-

jects, character testimonials, letters of recommendation, health examinations, and interest in the teaching profession. Criteria used to a lesser extent were intelligence test scores; hearing, speech, and vision examinations; personality ratings; and achievement and special aptitude tests. Continuous selection was the most frequently mentioned practice; this was interpreted as selection at any time, particularly at the end of a quarter or semester. In the initial selection of freshmen before admission, private institutions were more selective than public colleges and universities. Members of departments and colleges of education judged that admission criteria of prescribed high-school subjects and scholastic standing were overemphasized; criteria of high-school standing, general intelligence, and letters of recommendation were given appropriate weight; and health examinations, competence in speech, personal interviews, and personality ratings were not used often enough.

Sands (33) surveyed 112 institutions and found that over 40 percent used intelligence tests, English usage tests, course prerequisites, and grade-point averages for purposes of admission and screening. From 20 to 40 percent used tests of contemporary affairs; interest inventories; scholastic and teaching aptitude tests; and reading, speech, and personality tests.

Gough and Pemberton (13) studied the relation of scores on the *Minnesota Multiphasic Personality Inventory* to success in student teaching. The criterion was a composite of two ratings on four variables: (a) personal relations with students and teachers, (b) command and use of subjectmatter, (c) teaching skill, and (d) class management. Eight subjectively devised "signs" or profiles were related to the rating of student teaching success in the original sample. On a cross validation the profile interpretations possessed some validity, but their practical efficiency was not high and the need for further research was indicated.

Leavitt (23) found that students scoring above the 60th percentile on the *American Council on Education Psychological Examination* were more successful in student teaching than those who ranked below. However, no difference was noted for the *Ohio State University Psychological Test* or the *Northwestern University Analogies Test*; the need for further research is indicated. Downie and Bell (9) found a significant relationship between scores on the *Minnesota Teacher Attitude Inventory* and over-all grade-point average. It was judged subjectively that students who scored higher on the *MTAI* tended to have a broader background of experiences with young people and greater expressed interest in teaching; they tended also to be judged as better teaching prospects by their instructors. The study would be strengthened by replication.

Inlow (17) and Shaw (35) placed credence in the interview as a screening device. Shaw found no relationship between the objective data usually available at the time of admission to college and success in student teaching altho, when these data were evaluated in conjunction with an interview, there was some correspondence between the resulting prediction

and student teaching success. Inlow reported an experiment with the interview in selecting student teachers. Two staff members interviewed applicants for student teaching and subsequently, on the basis of observed personality factors, listed the applicants in order of anticipated success. At the end of the student teaching experience, supervising teachers completed a 25-item evaluative instrument which was used as the criterion of success in student teaching. The order of the listings of predicted and actual outcomes correlated from .12 to .83; additional experimentation in this area was recommended.

Page and Travers (27) attempted to find a relationship between the patterns of behavior derived from supervisors' descriptions of student teachers and the students' *Rorschach* patterns. The aim was to determine whether there were personality patterns which had certain consistent relationships with the supervisors' descriptions. No relationship between adjustment scores and the categories of behavior for students at the secondary level was found; certain suggestive relationships were found between a triad of *Rorschach* ratios and desirable performance at the elementary level, but further investigation was recommended.

Pupils' attitudes toward student teachers were studied by Grim, Hoyt, and Peitersen (15) and by Shepherd (36); the two sets of findings were somewhat contradictory. A teacher intern rating form consisting of 20 important competencies was found by Kropp and Tully (21) to be lacking in power to discriminate between strong and weak interns.

Ringness (30) obtained a multiple correlation of .76 for men and .78 for women between the results of a questionnaire entitled "Influences in My Choice of Teaching as a Profession" and a measure of teaching success. He found little or no relationship between results on the *Strong Vocational Interest Blank* and his criterion of teaching success; he concluded that the categories on the Strong test were not suited for comparison with teaching efficiency.

Hale (16) examined the interest patterns of veterans who had completed training for high-school teaching under PL 16 and had taken the *Kuder Preference Record—Vocational* during counseling. He reported differences up to 30 percentile points between their Kuder profiles and those of Kuder's standardizing groups altho some similarities in the profiles were noted. Potentially applicable as a screening device is the critical incident technic of effective-ineffective behaviors employed by Ryans (32).

Needed Research

Research needed in this area is outlined in a publication by the American Association of Colleges for Teacher Education (2). Tyler (38) also suggested important problems for future research. In general, less attention needs to be given to conducting surveys and more attention to testing hypotheses that lie behind the problems and questions of recruiting, advising, and screening prospective teachers.

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CHAPTER III

Preservice and Inservice Education of Elementary- and Secondary-School Teachers

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PROFESSIONAL concern with the ever-growing problems of teacher education was clearly evident as this REVIEW was prepared. The chronic shortage of elementary-school teachers, declining numbers of teacher trainees for the secondary level, expanding elementary and secondary enrolments, and the diverse additional duties teachers are continually acquiring, have all made it difficult to build and maintain a high level of teacher competence. In addition, as the vocation of teaching approaches the status of a profession, increasingly critical examinations may be expected of all phases of the preservice education of those preparing to teach.

For these and other reasons the last three years have seen an intense interest in preservice and inservice teacher education—an interest evidenced by the voluminous literature published on these subjects. Much of the material published, however, is of a nonresearch character, involving opinion, speculation, and reports of practices in specific institutions. Such research investigations as were reported tended to be of the survey type; experimental investigations were rare. In an effort to uncover the best research available in the area, the authors not only canvassed standard publications, but also examined numerous doctoral dissertations, a number of which are included in the bibliography.

Of considerable significance and basic to the whole area, have been the repeated failures of investigators to identify various factors of preservice education which are intimately related to inservice success. The findings of the numerous studies in this area must be regarded as essentially negative. The implication is that the research technics used may not be sufficiently refined to make the discriminations required, that research may have been concerned with the wrong dimensions of the relationships involved, or that student teaching and other professional courses may not contribute materially to inservice success.

Preservice Experiences Other Than Student Teaching

The American Association of Colleges for Teacher Education published three yearbooks (2, 3, 4) during the period covered by this REVIEW. Lynn (52) surveyed and analyzed practices in the professional education of secondary-school teachers in 30 colleges and universities accredited by the North Central Association of Colleges and Secondary Schools.

Among other findings he reported a tendency toward providing professional course experiences thruout a large portion of the degree program, with 80 percent of the institutions surveyed starting their sequence in the sophomore year or earlier. Most of the institutions used off-campus facilities for student teaching. Martin (54) reported some experiences with a junior-level course for elementary education majors at the University of Texas. This was a course in methods and materials with two major objectives: (a) to provide opportunities for students to participate in a particular classroom for six hours a week for one semester, and (b) to enable teachers to interpret what the student observes and does with the children. Various methods of informal evaluation convinced those in charge of the program that it was effective. Burnett and Seeman (15) described a professional orientation course for beginning college students. This experimental program is still in the process of development and the authors pointed out that research is needed to validate its effectiveness.

Callahan (16) investigated the nature and extent of preservice first-hand experiences other than student teaching and teacher internship in selected teacher education institutions. A number of recommendations were made including one that the number of direct experiences should be gradually increased up to entrance into student teaching. Several different methods were suggested by which the program of direct experiences could be evaluated. A similar investigation was made by Black (11) who sought to identify the laboratory experiences employed in the professional education of prospective secondary-school teachers in certain teacher education institutions in Florida. Information relative to the general characteristics of such experiences was sought by means of interviews and questionnaires. It was found that the institutions generally did not have adequate facilities to provide the experiences required, and it may be inferred from the report that the types of experiences provided were not as broad and comprehensive as they might have been. Recommendations for improvement were included.

Jamrich (42) investigated current practices in conducting general methods and related courses in the preparation of secondary-school teachers. He concluded that the objectives of general methods courses and the instructional procedures used in them are frequently at variance with recent educational thought regarding best methods of instruction, use of visual materials, and need for understanding the relationship of education to society. He identified the limited facilities in many institutions, the large size of classes, lack of integration, and the inadequate professional background of instructors as factors tending to reduce the effectiveness of general methods courses. Jagers (41) reported on the activities of the Florence State Teachers College, Alabama, in developing professional competencies in prospective teachers. A committee identified three major types of outcomes: (a) understanding of how children grow,

live, and learn; (b) ability to devise learning materials and adapt them to the needs of children at different learning levels; and (c) formulation of a philosophy of education and methods of implementing that philosophy thru a school program.

Robbins (65) tried to determine the concepts which should be included in the content of an orientation to teaching course and a course in growth and development, and to determine what level of treatment should be accorded these concepts. Basic data in the study were collected by means of a checklist which identified more than 100 major concepts. The instrument was checked by the 21 people responsible for the administration and direction of teacher education in the 21 institutions of higher education in Minnesota. The respondents recommended that 36 concepts be placed in the area of growth and development and that 85 concepts be placed in the area of orientation to teaching.

Several studies were reported bearing on the relationship of preservice education to experience in the field. Davis (23) compared certain factors pertaining to preservice education of graduates with their teaching experiences in the secondary schools. One conclusion reached was that graduates did not have the training desirable to prepare them to sponsor various pupil activities; this was especially important since it was found that teachers were devoting nearly as much time to student activities as to classroom instruction. Oliver (60) contrasted the stated educational beliefs of 119 elementary-school teachers with their classroom practices. When queried, the teachers nearly all agreed that the following were basic principles of learning: (a) good teaching recognizes and provides for individual differences among children; (b) human growth and development is a continuous process; (c) real learning is based upon experiencing; and (d) learning proceeds best when related to the interests and experiences of the learner. Classrooms were later visited to determine the extent to which these teachers were practicing the stated principles. Little relationship was found between the teachers' professed beliefs and their classroom practices. It was concluded that teacher education institutions should make changes in their curriculum in order to insure better understanding of modern methods of instruction and to supply classroom technics based on child needs, interests, and capacities.

Mills and Rogers (56) asked 171 teachers attending summer school in New York and North Carolina to indicate on a checklist problems they found to be serious in their present teaching situations. Leading all other problems for the total group of teachers was the problem of teaching dull children. Teaching bright children ranked well down on the list; this fact led the authors to suggest that an investigation be made to determine whether the bright child is easier to teach, is able to get along by himself, or is being neglected. Dealing with seriously maladjusted children, grading, and questions involving promotion or retention were next in order of importance. There was some variation in the problems

thought most important by men and by women, and by teachers in New York and teachers in North Carolina. It was suggested that more such studies be made to assess teacher needs to test the practicality of course study materials in teacher education institutions. Davis (22) asked graduates in service to evaluate their preservice education; the favorableness of their opinions was related to their success in teaching to some extent but chiefly to the curriculum of the institution concerned.

A study of the effect of role playing, combined with discussion, upon the attitudes and behavior of teachers in training was made by Reinhart (63). Some implications were that role playing tends to bridge the gap between theory and practice, promotes identification with and interpenetration of thoughts and feelings of classmates, promotes mental health, and evokes more accurate perceptions of self as well as of others.

Continuing interest in general education and its relation to the preparation of teachers was reflected in several publications (3, 34, 35, 51).

Educational television attracted increasing attention. Emery (25) outlined assumptions basic to the development of telecourses at the college level, recommended procedures for maintaining a high quality of academic content, and listed certain telecourses offered for credit by colleges and universities. Allen (1) and Lewis (49) reported experiences with the use of closed-circuit television in teacher education. Research relating to educational television was reviewed by Finn (27). The latest in the series of yearbooks of the Institute for Education by Radio and Television which had appeared at this writing was the twenty-second (61).

Student Teaching

Bach (7) reported an investigation of the relationships between success in student teaching and success in the first year of teaching. The results of a correlational and factorial analysis showed negligible relationships between measures of student teaching ability and success in the field. Critic teachers and principals apparently emphasized different abilities and characteristics or else they were seeking different combinations of abilities.

Robb (64) investigated the association of several factors with student teaching success. There was little relationship between success in student teaching and the expressed interests of students, their scholastic records, or their intelligence. Bond (12) identified good disciplinarians among student teachers, and discovered that they ranked higher than unselected groups of student teachers on 32 traits thought to be related to teaching effectiveness. They made particularly high scores on all qualities relating to direct contact with pupils, but they were no more competent in planning than the unselected groups. Nearly 90 percent of the good disciplinarians received A's in student teaching, but only 30 percent of unselected student teachers received this grade. Carlile (17) examined the relationships between grades in student teaching and several measures in each of the

areas of intelligence, teaching aptitude, proficiency in the basic skills, scholastic achievement, and personality traits. College grades correlated .46 with student teaching grades, the highest correlation reported; in general little relationship was found between student teaching grades and the 23 measures employed. However, in the study by Leavitt (48) no appreciable relationship was found between course grades in college and student teaching success.

Grim, Hoyt, and Peitersen (33) described an attempt to develop an attitude inventory which, when administered to pupils, would serve as one measure of student teacher competence. Scores were obtained on pupil attitudes toward (a) quality of classroom government, (b) clarity of objectives, (c) incentive quality, (d) motivational intensity level, and (e) provision for psychological needs. Since correlations between the mean pupil score on each attitude and the mean rating given by supervisory teachers for the student teachers involved did not differ significantly from zero, it was concluded that supervising teachers base their ratings of student teachers on something other than pupil attitudes. The attitude scores were factored; a general factor was tentatively identified as involving the pupil's own understandings of relationships and his self-direction toward personalized goals.

A survey by Gates and Currie (30) of supervision of student teaching in Michigan resulted in the formulation of an extensive list of suggestions with respect to the status and responsibilities of the supervising teacher, the working conditions and facilities for student teaching, and qualifications of the supervising teacher. Hendrix (36) surveyed eight multi-purpose institutions in order to obtain information about the provisions made for elementary-school student teaching. He concluded that the first two years of college should be essentially a liberal arts program, but with six hours of professional training. He recommended 30 hours of professional work during the last two years, including eight weeks of full-time, off-campus student teaching with workshops in specialized areas completing this split semester.

Atherton (6) reported the development of a list of 49 criteria for the selection of student teaching centers for prospective vocational agriculture teachers. Rucker (66) studied the changes in student teaching from 1932 to 1952. Among trends he identified were: (a) a trend toward student teaching as a full-time experience; (b) the use of more laboratory experiences in teacher education; (c) more off-campus experiences in student teaching, including community experiences where the teaching is performed; (d) an increase in time allotments for student teaching and for other laboratory activities of teacher education; (e) an increase in the amount of academic credit awarded for student teaching; (f) the use of laboratory activities, including student teaching, as the reference point of the whole curriculum in teacher education; and (g) student teaching on more grade levels.

Other publications in the area included three yearbooks (37, 39, 67) of the Association for Student Teaching and a text for supervisors of student teachers by Curtis and Andrews (21).

Other Programs

As a result of an extensive survey of provisions made for the training of teachers for the gifted, Wilson (80) concluded that the institutions surveyed were not meeting the need and have shown neither leadership nor a willingness to assume responsibility in this area. An adequate program apparently remains to be delineated.

A number of doctoral dissertations were devoted to the study of various aspects of teacher education for certain specialized areas. Froehlich (28) made a determination of the content of a bookkeeping methods course on the undergraduate level and of the activities of the student and the instructor in the conduct of such a course. Willis (79) studied the status of teacher education with reference to distributive education and evaluated existing practices by the use of expert opinion. Beck (10) determined the nature and status of student teaching programs in science in Ohio at the high-school level and made recommendations for changes in order to harmonize standards established by the American Association of Colleges for Teacher Education and present practices. Anderson (5) reported the status of student teaching in industrial arts education after a survey of 109 industrial arts departments in representative institutions of higher education. Developments in the Cooperative Program in Educational Administration were described by Carroll (18).

Walton (73) described a program which was designed to provide both a broad cultural background and professional competencies thru an enriched four-year program. This was proposed as an alternative to the fifth year. Boyter (13) conducted a survey of five-year teacher education programs in 42 institutions. Four weaknesses of current programs were identified: (a) failure to integrate the five-year sequence of courses, (b) lack of full cooperation among persons involved in the task of preparing teachers, (c) failure to correlate theory and practice, and (d) failure to provide opportunity to participate in community activities. Several principles were suggested by means of which institutions may study and evaluate their own programs. An attempt to define the special areas of competence which should be developed thru the fifth year of professional training was reported by Jagers (40).

The Ford Foundation-Arkansas experiment, a fifth-year program, was reported by Clarke (19) and by Pulley and Stafford (62). The Louisville Pilot Project, also supported by the Ford Foundation, was reported by Wilkes (78). A new master's program in education in which the thesis is a requirement was described by Nelson and Pendergraft (59). Lamke (46) studied the extent to which theses are generally required for master's degrees in education. He found that about 30 percent of the institutions

offering such degrees require a thesis, 5 percent make no provision for a thesis, and the remainder make the thesis optional. He pointed out that the number of master's theses produced seemed to vary inversely with the size of the institution: Among institutions awarding fewer than 200 master's degrees annually in the area of education, one graduate in six wrote a thesis, whereas among institutions awarding more than 200 such degrees annually, only one graduate in 20 wrote a thesis.

Effect of Inservice Teacher-Training Programs

Mork's study (58) of the effects of an inservice teacher education program on pupil outcomes in fifth- and sixth-grade science is of excellent caliber and is a good example of a carefully conceived study that utilized sound statistical technics. More research of this quality is needed in the area of inservice education. Since this study is one of the few research studies on inservice education which deviate from the usual patterns of interview, survey, or opinion, it will be treated in some detail.

In testing the outcomes of science instruction, Mork attempted to measure progress toward three objectives: (a) ability to recognize superstitions and misconceptions; (b) ability to apply science principles; and (c) familiarity with basic facts, concepts, and vocabulary. Experimental factors were the experiences which constituted the program of inservice teacher education. The investigator and the teachers in the inservice program met and worked together in six meetings during the inservice year on the following topics: (a) orientation and planning, (b) objectives and methods, (c) major understandings concerning "living things," (d) understandings related to "doing the world's work," (e) understandings related to "what the universe is made of," and (f) materials of instruction. The experimental design employed a two-year study technic in which the teachers' results in the first year were compared with the results of the second or inservice year. The pupils of four teachers from the Duluth, Minnesota, public school system constituted experimental as well as control groups. Outside control groups from the Duluth system and from the laboratory schools of the teachers colleges in Minnesota participated in the same two-year testing program. The statistical phase of the investigation employed analysis of variance and covariance which in effect permitted the comparison of the achievement of control and experimental groups while holding constant intelligence quotients and initial science test scores.

The results of the analysis revealed that the four participating inservice teachers groups achieved results on the total science test during the experimental year which were superior to those obtained during the control year, altho in only one case was the difference in adjusted means statistically significant. No statistically significant results were obtained using the same technic with the outside control groups. Pupils of one or more teachers who participated in the inservice program made significantly higher ad-

justed mean scores at the end of the experimental year than at the end of the control year on subtests designed to measure: (a) ability to apply science principles and (b) knowledge of facts, concepts, and vocabulary. In addition, there was evidence that effective instruction was accompanied by greater variability since both greater mean scores and greater variability occurred in the experimental groups. While the extent of generalization possible from this study may be limited, ability to generalize is aided because the population studied was adequately and specifically described.

Several other studies, using less complex designs, were made of the effectiveness of inservice education programs. Dysart (24) investigated the effect of inservice education in sociometry and socio-drama on teacher-pupil rapport and social climate in the classroom. He concluded that a laboratory-workshop type of inservice education experience can develop the teacher's capacity to change the social-emotional climate of the classroom. Cox (20), in a study of the effectiveness of an intern period for Georgia supervisors, concluded that the intern period was most effective in helping supervisors develop skills as resource persons but was least effective in helping supervisors improve their teaching practices. Stockman (71) studied contrasting situations in which helping teachers were and were not part of the county public school systems. He concluded that the county systems with helping teachers were superior. Beauchamp (9) examined the effect of an inservice education program on group processes in the classroom. Pre- and post-ratings of the operation of group processes in the classroom indicated that a document which was used with the teachers was an effective instrument in identifying difficulties and that the program of inservice education did result in improved group processes. Holmlund's study (38) of the effectiveness of the Flint, Michigan, inservice program in child growth and development revealed that teachers in the experimental group improved their ability to diagnose and suggest remedial measures for behavior problems. Older teachers responded to the instruction to a greater degree than did teachers in other age groups.

Administrative Aspects of Inservice Education

Shanks (69) studied the professional inservice improvement of teachers in Missouri by means of a normative survey. His most significant conclusion was that Missouri teachers needed more adequate leadership by a specially trained and qualified administrative group. Landers (47) studied the status of inservice education programs in operation in the public schools of Arkansas. On the basis of teacher interviews and a 51.4-percent return of questionnaires by school administrators, his study revealed that teacher responsibility in the organization and administration of educational programs was an excellent means for stimulating and challenging interest.

Krong (45) reviewed the practices of six teacher education institutions in the inservice education of public-school administrators. Krong visited the institutions and obtained the opinions of administrators and school-board members of selected school districts by means of a questionnaire. The study revealed that classes, educational surveys, group conferences, and consultative services were the usual approaches to inservice education. The principal obstacles to participation in such activities on the part of school personnel were distance and lack of time. Lindel (50) made a study of the money values attached to the service experience of teachers in the 30 largest cities in the United States. The superintendents of schools and the deans of education in colleges which were members of the Association of American Universities were in close agreement on most of the 13 items with regard to practice and opinion. The greatest agreement was on the items of original training and experience. The greatest divergence occurred with regard to community service—only 4 percent of the superintendents attached money value to the service whereas 84 percent of the deans felt money value should be attached to the service.

Courses and Workshops

Courses and workshops continue to be the most used forms of inservice education. Marcus (53) studied the opinions of teachers toward off-campus college credit courses by means of a questionnaire. Teachers participating in off-campus college courses stated that they used more community resources, allowed more pupil participation in school planning, and modified their teaching methods and pupil-progress reporting. Mitchell (57) attempted to identify those characteristics of the workshop which distinguish it from other inservice procedures. On the basis of a program of visitation and a low percentage of questionnaires returned by participants, he concluded that the major factor in the success of a workshop is its staff.

College credit for educational travel, particularly as a form of inservice education, won increasing recognition. Kinsel (44) reported that principals recognize the values of educational travel. Wilcox (77) identified 102 colleges and universities which had offered travel courses for college credit between 1946 and 1951. Of these, 41 had sponsored groups bound for Europe. Credit of one semester hour per week was commonly awarded. In general, both sponsors and participants believed educational travel to be eminently worthwhile.

Miscellaneous Investigations

From a survey of teacher education in degree-granting institutions in Missouri, Erickson (26) concluded that there was need for more institutional self-appraisal for a constant review and revision of practices employed. There appeared to be a need for more activities and experiences and a better integration of experiences with other phases of the teacher

education program. A study by Maul (55) provided evidence of the changing nature of the supply of teachers, particularly the change in the ratio of high-school trainees to elementary-school trainees from approximately 4 to 1 prior to World War II to a present ratio of 1.44 to 1. An example of inter-institutional cooperation by those concerned with the problem of teacher education was reported by Goodlad (31).

The National Commission on Teacher Education and Professional Standards (70) sponsored a restudy of conversion programs as a means of increasing the supply of elementary-school teachers. The stated purpose of the Commission was to assist state departments of education, teacher education institutions, and state education associations in organizing and developing professionally sound conversion programs for the preparation of elementary-school teachers. A further purpose was to stimulate activities which would insure adequate programs to achieve the desired ends. The report submitted consisted of three parts: (a) a statement of guiding principles for conversion programs, (b) illustrative conversion programs in operation in a number of states, and (c) suggested conversion programs for the preparation of elementary-school teachers.

Fulkerson (29) summarized research relating to teacher personnel. He concluded that research which provides more than a partial and tentative answer regarding what makes for effective teaching is still to be undertaken. He believed teaching ability to be probably a complex of characteristics, and suggested that future research take into account the possibility of different patterns of effective teacher behavior for different kinds of teachers, pupils, and educational situations.

Needed Research

Several studies (8, 14, 32, 43, 60, 68, 72, 74, 75, 76) concerned with the problems, practices, beliefs, and attitudes of teachers indicated areas where both preservice and inservice education need improvement and therefore are suggestive of areas for future research.

Many studies related directly or indirectly to teacher education were available for review; those reviewed were representative of all the studies available. With the exception of a few studies, most of the investigations reported were of the interview, survey, or opinion type; questionnaires were extensively used. Many of the latter studies, altho more rigorous than in past years, may be criticized because of inadequately validated criteria and unsound sampling technics.

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CHAPTER IV

Employment Practices and Working Conditions in the Elementary and Secondary Schools

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PERSONNEL administration is generally recognized by school administrators (and professors who teach administrators) as one of the three or four central, vital areas in the management of schools. This chapter, perhaps more than others in this issue of the REVIEW, is addressed to the men who must select, assign, evaluate, promote, cultivate, and protect teachers. When one says "employment practices and working conditions," one has pretty much described the scope of public-school personnel administration. Cross references will be made from time to time to other chapters in this issue, and an effort will be made not to duplicate the analyses of others; however, what is applicable to the practitioners' problem is hard to delimit neatly. In brief, the author sees the function of Chapter IV as organizing certain pertinent publications in appropriate terms for the man who employs and who is responsible in many ways for working conditions.

Cabe (7), Fulkerson (19), and Yeager (85) summarized personnel administration in somewhat similar terms. Yeager's section on selection, appointment, and adjustment of teachers is particularly pertinent in establishing this viewpoint in regard to administrative responsibility.

Before entering on a more systematic treatment of the subject, three general references deserve mention for the factual information they provide on a wide variety of topics. The International Bureau of Education (29) issues the *International Yearbook of Education* which contains reviews of conditions for 60 countries. Information is presented on a topical basis; items, such as teacher shortages, training, and conditions of service, include international comparisons. There are also sections on each country which give other items and greater detail. The 1953 issue was the most recent as of this writing. The 1954 International Conference on Public Education (30) produced a report which provides fascinating facts and figures about working conditions and salaries of secondary-school teachers in the nations of the world. Perspective gained from this report shows that the American high-school teacher is not in every way the most fortunate of those so employed. Garber's *Yearbook of School Law* (23) gives succinct treatment to a variety of topics related to employment and working conditions. Certification, tenure, contracts, salaries (paid and not paid), failure to answer questions regarding subversive activities, and other pertinent matters were dealt with.

Desirable Characteristics of Teachers

While the major treatment of predicting teacher success is given in Chapter VII of this issue and while other information useful in an analogous fashion may be found in Chapter II, there is still need for some consideration of the definition of a good teacher in talking about employment practices. As Scates (71) suggests, to secure adequacy in selection, criteria are needed.

One way to approach the question of what kinds of teachers to hire is to find out what kinds of teachers children like and respond to. Ojemann (57) reviewed the research on children's preferences. Michael, Herrold, and Cryan (41) reported a study of what students want in a teacher. McAulay (38) queried college students, school children, administrators and supervisors, and parents as to what makes a good teacher. He found that good teachers are expected to have, among other things: (a) moral and ethical standards higher than those in the community; (b) humor, love, and understanding; (c) broad academic and cultural backgrounds; and (d) a variety of teaching methods.

Similar characteristics were identified by a much different procedure—an inquiry as to what characteristics the staffs of the more adaptable schools have. These studies were reported by Ross and others (68). Clusters of characteristics, identified thru factor analysis, come out of these studies: The good school staff is a balance of mature, professionally trained and oriented people, with broad academic backgrounds and extensive, current cultural interests.

Ryans (69) identified such dimensions of teacher behavior as "partial," "friendly," and "autocratic." He suggested various ways for gauging them. This is helpful when brought together with Levin's work (36), which suggested that pupils and principals can give reliable ratings of teachers when *specific* judgments are required. Thus, if it can be established that teachers judged to be friendly can get children to do more homework than teachers judged to be unfriendly, then an employing officer can be guided by ratings on how friendly a prospective employee has been thought to be previously by peers and supervisors.

Requirements for Employment

The requirement of certification by a state agency for publicly employed teachers is now a universally accepted condition. Furthermore, as reported in *Midland Schools* (42), the trend is to raise certification requirements. A requirement of a bachelor's degree plus additional training is not at all unusual for "permanent" or "standard" certification. This article also pointed out that "high-standard states" graduate more teachers, have lower turnover, and pay higher salaries.

While stated requirements for certification are rising, there is the paradoxical situation of increasing numbers of "substandard," "tem-

porary," and "emergency" certificates. One hopeful ray is that among a group of particularly energetic schools, where teachers' salaries have risen not only as much as the cost of living dictates, but also to the extent indicated by the changing standard of living, the teaching staffs have not deteriorated, but have improved, both in number and in quality (39, 40). Grounds for local authorities to go beyond state certification requirements in terms of the academic and professional training demanded are provided in many studies. Sufficient to illustrate this point is the study by McAulay (38) and those reported by Ross and others (68). Many school systems are now raising their requirements, teacher shortage or no.

The experience requirement formerly characteristic of better financed schools has been dealt a body blow by a combination of general financial conditions, state equalization laws, and the discovery that experience only, regardless of what kind and where, is not necessarily a positive factor. Gaier, Jones, and Simpson (21) reported an interesting twist on the effects of experience: Teachers with experience in smaller schools are more apt to be resourceful than those with experience exclusively in larger schools.

Being under some specified age, such as 40, and being unmarried have also been items frequently specified in past local regulations concerning employment. The latter requirement has disappeared and the former is rapidly eroding under changing socio-economic conditions. Research suggests that expediency is forcing a more salutary condition; there is no reason for believing that marital status has much to do with instructional performance, and the chances are that persons over 40 make better teachers (68). Even if this were not so, present socio-economic forces cannot be ignored. Linden (37) pointed out that the labor market is better if one is hiring older people. Stephenson's study (75) showed not only that the proportion of women teachers who are married has risen to 57 percent, but also that 82 percent of his student respondents at Miami University planned to combine marriage and teaching. In fact, 15 percent were married before graduation.

Selection Practices

Benson (4), who makes tests for teachers, looked dispassionately at the matter of selecting teachers in part on the basis of pencil-and-paper tests and found some value in such tests. While admitting that they cannot provide mechanistic answers to the problems of staff selection, he answered some common criticisms and showed perspective in considering the matter.

Leeds' research (35) suggested that pencil-and-paper tests can be constructed which will give pertinent information on attitudes important to successful teaching. Analysis of responses (on a five-point scale) to a series of subjective statements, such as "most children are obedient," revealed a relationship to teacher quality as measured by the judgment of peers.

Gage and Suci (20) reported an ingenious study wherein teachers' predictions of children's responses to certain attitude questions were found to predict the opinions held by pupils in regard to their teachers. The better a teacher could predict how pupils would answer these questions, the better these teachers had made out in an earlier favorable-unfavorable rating by pupils. This capacity to understand children which is so obviously a characteristic of the master teacher can, apparently, be measured. It is certainly a live lead for selection procedures in the employing process.

The interview is a standard selecting process. Clarke (11) suggested some technics which can make it more effective than it has been in the past. While almost every employing officer looks over records furnished by teacher education institutions, these credentials have not been shown to be of great practical value. Neither measures of intelligence nor college marks have been very effective predictors of teaching success, and as for faculty ratings, Carlile (8) found a correlation of only .21 between such ratings and, for example, grades in student teaching.

Some positive ideas on how to select teachers on the basis of observation may be gleaned from articles by Hearn (27) and Ryans (70). Hearn found that judgments by principals on classroom control, meeting individual needs, cooperation with colleagues, group projects, class discussions, and efforts toward professional growth predict general competence.

Orientation of New Teachers

Practices in connection with the orientation of new teachers were reported in *Childhood Education* (9) and more systematically by the NEA (54). Apparently nearly everyone concerned is trying to do something to make the newly appointed teacher wiser or happier. Some attempts to assess the efficacy of these practices were made by Boyack (5) and Corder (13) by studying the opinions of the neophytes themselves. Both studies endorsed conferences and the usual series of meetings.

Boyack (5) stated that personal and human matters were important items for attention. This is somewhat in conflict with the findings reported by Wallace (80, 81), who stated that the two most common problems of new teachers were learning administrative routines and understanding the school's system of evaluation. Wallace indicated that conditions of work, such as materials and physical surroundings, provided many common problems. Personal and personal-community problems did not seem to be particularly prevalent among Wallace's interviewees. Foster (18) pointed out that many of the problems identified by new teachers are related to the nature of their preservice training. Wellbank (82) also provided a problem census of beginning high-school teachers.

Promotion and Tenure

As a reasonable extension of employment procedures, and certainly as an aspect of working conditions, the matter of selection of principals

and other status officers of the school system arises. There are two widely divergent modes of practice: to promote exclusively from within or to import people for all posts ranked above the classroom teacher. There is a certain degree of uniformity among the larger systems in tending to promote exclusively from within the system. The NEA (52) reported information on the prevalence of within-staff promotions. This same report contained material on characteristics of appraisal procedures used in urban systems.

Greene, as a member of the New York City board of examiners, helps to select people for promotion in one of the largest school systems in the world, a school system probably as strongly committed to promotion from within as any that can be found. He (24) reported a number of technics which seem to be effective evaluation devices in New York City. Of particular value are his suggestions on group interview methods.

An obviously important aspect of the working conditions of teachers is their tenure protection. The NEA Committee on Tenure and Academic Freedom (44) summarized the state statutory provisions for tenure or contractual protection. The tenure laws of 32 states may be found individually abstracted in this pamphlet.

Roach's single case (64) illustrates the fact that the courts have taken considerable care in reference to procedural matters to protect the tenure rights of teachers; however, Garber (23) and the NEA Committee on Tenure and Academic Freedom (45) presented cases indicating a weakening of ironclad protection in some states. According to Garber's cases, the courts have taken exceptions and limitations which challenge the simple concept of tenure as long held in the law. The NEA Committee's report tends to show a narrowing of application and an emphasis on procedure to the detriment of the plaintiffs.

Most treatments of academic freedom emphasize the viewpoint of the personnel of institutions of higher learning. However, there is some material pertinent, either directly or by analogy, to the public school. Van Den Haag (79) took the orthodox view that academic freedom means freedom to inquire but that it does not mean license. Since he built a case to show that communists are not intellectually free, he reasoned that they cannot claim academic freedom. He pointed out that the right to deviate has its limits short of conspiracy. Perry (60) took a somewhat different point of view, claiming that liberty cannot be protected by surrendering it. Newsom (56) pointed out that loyalty oaths are historically and rationally justified, and that the courts have clearly and consistently shown their intent to uphold them. Attempts to provide means of measuring degrees of academic freedom have been made by Kerr (34) and by Ross and others (67).

Salary Schedules

Principles of salary scheduling and administration as seen by the NEA Research Division (47) include a minimum high enough to attract, a

maximum high enough to hold, and an orderly process for moving thru a series of steps to the maximum. The NEA Research Division (48, 49) reported salary schedules by size of community. Minimums, maximums, number of steps, degree provisions, and other data were given.

Regional information is provided by school study councils. For example, the New England School Development Council (55) presented data for about 100 school systems, giving, in addition to salary schedules, substitutes' pay, sick-leave provisions, eligibility for initial employment, salary policy administration, turnover, and tenure. The Metropolitan School Study Council (39) reviewed salary schedules and their administration for the New York City area.

Armentrout (2) found that, as a general rule, the larger the school system, the higher the salaries. Evidence that this is not true of some urban centers in contrast with their independent suburbs may be found in the New England and New York regional reports cited above.

In this day and age, when almost every community is building at least one new school, it is perfectly natural to ask whether the burden of capital outlay inhibits increases in salary schedules. The answer, according to Ostlie (58), is no. This is confirmed by Metropolitan School Study Council data (39, 40). Salary schedules are being revised frequently in the face of changing economic conditions. The typical community in the New York metropolitan area revises its salary schedule about three times every five years.

Professional organizations are important in the lives of teachers, both as an aspect of general working conditions and as a critical agency in connection with salary adjustments. Stinnett (76) summarized some basic information, and the *Journal of the National Education Association* (32) reviewed briefly what the state associations are doing in regard to placement services, salaries, defense committees, retirement, group insurance, recreation, and other items. Yabroff and David (84) summarized the history and present status of teachers unions and listed 90 work stoppages involving teachers from 1940 thru 1952.

Work Load

Work load is linked with salary as a basic aspect of working conditions. Similarly, it is a central problem in personnel administration. As Bush (6) pointed out, teachers cannot be spread too thin; there is a need for creativity in devising ways to make the best use of highly trained talent. Hartung (25) suggested subprofessional personnel to take care of routine and clerical responsibilities.

The NEA Research Division (50) presented data on teaching load in 1950. The report dealt in comparative terms with number of pupils, number of pupil-hours in the classroom, and number of hours devoted to activities other than classroom teaching. It would seem from this that

both the elementary-school teacher and the high-school teacher work a 48-hour week. Some inquiry was made as to "strain," and what attitudinal and concrete items might bear a causal relationship.

In terms of the elementary program, class size is a simple measure of work load. The NEA Research Division (46) indicated that class size is largest in the largest districts and in the southeastern part of the country. A fear was expressed that optimum class sizes are being inundated by rising tides of enrolment. Metropolitan School Study Council data (40) were somewhat at variance with this; numerical measures of adequacy of staff have improved for this group of schools since 1939. Ross and Polley's study (66) of class size in the New York area indicated that the big city had larger classes by far than suburban areas, but within the suburban group there was no difference in class size on the basis of system size.

The high-school work load problem is, of course, considerably more complex. Douglass' formula for combining the various factors that are the components of a high-school teacher's load was revised (15, 16). The question of extra pay for extra work and extra responsibility has provoked a number of helpful analyses of high-school work load (3, 28). Sprague (74) reported an interesting practice in equalizing work load by rotation of assignments. Clark (10) indicated an analysis of the wearing effects of different teaching chores.

One of the newer developments of probable significance is the idea of the year-round school and the year-round employment of professional personnel. The NEA (53) reported the diffusion of this practice, along with statistics on the length of the school year for professional employees in city school systems.

An extension of the analysis of work load of teachers is the inquiry as to whether or not they find it necessary to carry a supplementary job. Unruh (78) reported that out of 336 respondents among the teachers of the St. Louis city and county systems, only 8 percent lived on their teaching salaries alone. Among 100 different kinds of jobs reported by the other 92 percent were architect, bartender, and timekeeper at a race track.

Basic data on specific provisions of over 400 school systems for various kinds of leaves—sick leave, maternity leave, and extended leaves for study—were reported by the NEA (51). The American Association of School Administrators (1) set up guideposts for school systems in assessing their local policies with respect to sick leave. Roach (63) pointed out that schoolboards should plan on paying for military leave for reservists in the light of current court decisions.

Other Conditions of Work

It seems reasonable to believe that the greater the degree of self-determination a person has in his work, the greater will be his satisfaction

with his job. This assumption has been the basis for a great deal of the modern practice in personnel administration. It is now acceptable both to speak and to act in accordance with the idea that teachers should participate in the administrative decisions that will affect them, and should be free to make independent decisions and choices on many other matters within their professional responsibility. Ovsiew's collection of newer administrative practices (59) illustrates this trend. One model for staff participation in the government of a school is provided by Seyfert (72), who described how things were done at the University of Chicago Laboratory School. Cornell (14) asked, aptly, when teachers should share in making administrative decisions.

Ross and others (67) made a search of the literature of school and public administration to determine what shades of meaning people normally included in the term "democratic administration." They identified seven facets of the term, and constructed an instrument for estimating the quantity of each one present in school systems.

As Drummond (17) implied, job satisfaction for a teacher is not just a matter of money. Zeran (86) noted that the teacher is the focal point of many human forces—community, supervisors and administrators, fellow teachers, children, personal friends, and family. Working, as he does, with human material, many more intangible things than salary, quantitative work load, and leaves-of-absence provisions are influential forces in the teacher's working milieu. Items, such as freedom as a citizen, retirement provisions, and welfare benefits, are important. But there still remains a body of items, part of the working conditions, which we must, for want of better terminology, categorize as mental health and human relations factors. Perhaps by placing personnel administration, as Silverman (73) suggested, on sounder psychological bases, much can be accomplished.

Human relations seems to be the current "big" topic in personnel administration. Articles by Gannon (22), Haskew (26), Kennelly (33), and Mones (43) illustrate this emphasis. Tanner (77) linked personality and private-life personal adjustment to teaching performance. Resnick (61) suggested six ways for the teacher to retain his mental health. Two of these are: to have some friends who are not teachers, and to get away from concern with schoolwork and children for a part of each day. If, as Robinson (65) stated, care for the mental and emotional well-being of the "normal" teacher is a responsibility of the employer, then the nature and quantity of things administrators ask teachers to do must be considered. Perhaps others should go as far as the superintendent who arranged for his teachers (predominantly female) to become eligible for membership in the social club maintained for the employees (predominantly male) of a local chemical industry. Robinson also suggested that school systems should provide for personal guidance services for teachers as well as students.

Riesman (62) pointed to the conflicting demands made on teachers by such things as social drives, idealistic concepts of education, and cultural

commitments. Certainly the teacher committed to a love of learning for learning's sake and feeling guilty because he cannot "teach children, not subjectmatter" is subject to inordinate stress. To the degree that our hopes for education have outrun our practices, teachers are bound to feel frustration. Wrightstone's ideas on measuring social climate in classrooms (83) may bring some pertinent scientific evaluation to bear. Jenkins and Lippitt (31) stated that part of the trouble in the teacher's job is the failure to understand how others see him, and failure on the part of others to understand how he sees them. They felt that the solution lay in "action research."

Cobb (12) has a concluding, cheering word for teachers: High-school seniors do not think teachers are such an awfully bad lot.

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CHAPTER V

Economic, Legal, and Social Status of Teachers

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PERHAPS no other problem of the teaching profession is written about so frequently as the economic status of teachers. Current data and trends on the salary level of teachers and comparisons of this level with industrial wages, with salaries paid in other professions, and with the cost of living are available. Since these and other such measures do reflect the economic status of teachers in our society, we can justifiably report that the research, altho it consists largely of statistical tabulations, is worthwhile. However, the basic questions of what a competent teacher is worth to society and how the social or economic status of teachers affects the caliber of persons choosing teaching as a vocation still offer real challenge for research.

Research on the legal status of teachers has been confined largely to the development of general guiding principles and the reporting of new legislation and court decisions. The influence of laws and their interpretation upon the effectiveness of the educational process requires the attention of research workers.

Social status studies have been approached primarily thru the use of rankings of various occupations, studies of the determinants of vocational choice, and the use of economic status as a reflection of the social values placed upon the teaching profession. In the area of economic and social status, one of the most challenging aspects of the research may be the application of the methodology of the more general studies to specific communities and school districts. An indication of the renewed interest in the status of staff personnel was given by the publication in 1954 of textbooks by Elsbree and Reutter (20), Weber (73), and Yeager (80).

Economic Status

The NEA Research Division (38) estimated the national average salary of the instructional staff in the public schools, including principals, supervisors, and classroom teachers, as \$3932 for the school year 1954-55. This represents an increase of \$806 above the level reported for the school year 1950-51. The estimated average salary of classroom teachers only was \$3816 for 1954-55. The lowest estimates were reported for Mississippi, \$2050, and Arkansas, \$2165, as contrasted with averages of \$4950 in New York and \$4925 in California. To put it another way, in 1954-55 it was estimated that 55 percent of the teachers in Alabama, 73 percent in Arkansas, and 62 percent in Kentucky were paid less than \$2500. On the other hand, an estimated 55 percent in California, 43 percent in New Jersey, and 56 percent in New York were paid more than \$4500.

The NEA Research Division (41) cited the 1951 Bureau of Labor Statistics study showing that a salary of \$4158 was required to sustain a "modest but adequate" standard of living for a family of four: a father who wears overalls to work, a mother not gainfully employed, and two school-age children. The figure was projected to \$4285 for 1954. Other estimates for budgets required for a family of four at the wage-earner or nonprofessional level are \$5500 (Heller Committee, projected to 1954), and \$5000 (Haynes Foundation, projected to 1954).

The NEA Research Division (50) reported progress in teacher salary scheduling in urban areas. Many state education associations have supplemented these data for individual states. Studies by Hubbard (31) and Reller (60) indicated that the gaps among salaries of teachers on various grade levels and the gap between classroom teachers and administrators are diminishing. The NEA Research Division (50) reported that the salaries of teachers and administrators in smaller communities appeared to be continuing to increase at a proportionately faster rate than those in larger communities, but the gap between salaries in the smaller places and those in the larger centers is still wide.

Clark (11) continued to report his index of real salaries of teachers. From December 1951 until September 1953, teachers made little progress in terms of the index of real salaries (109.7 to 114.0, with 1939=100) because of the continuing increase in the cost-of-living index. However, by September 1954 the index of real salaries had risen to 130.1 and the relatively stable cost of living indicates further gains by teachers in this respect during the current year. The NEA Research Division (41) called attention again to the influence of federal income taxes upon the real salaries of teachers.

The NEA Research Division (38) reported that, altho the salaries of teachers were 11 percent higher than those of all employed persons in the United States in 1939, they are now about equal. Altho the average salary of teachers is now advancing more rapidly than the rise in living costs, teachers have not recovered the relative status which they had achieved by 1939 but lost during the war years.

The California Teachers Association (10) and the NEA Research Division (40, 41) presented comparisons of salaries of teachers with other groups. It was estimated that in the calendar year 1953, teachers earned an average of \$3615; all employees working for wages or salaries, \$3590; all employees in manufacturing, \$4051; civilian employees of the federal government, \$4103; and non-salaried dentists, lawyers, and physicians, \$11,000. However, Boertz (7) pointed out that the education of dentists and physicians was relatively more expensive. He reported that the average cost of an educational administrator's postgraduate work thru the doctorate was \$4962 for an unmarried student, whereas the four years of professional training required for dentists cost an unmarried student \$8667, and that required for physicians, \$8332.

Hammer (30) compared the salaries of teachers and other occupational groups on an international scale; teachers in the United States appeared lower on the economic scale in relation to all employed workers than the average for all countries studied. The International Conference on Public Education (32, 33) provided information thru 1949-50 on teachers' salaries in countries other than the United States.

Fleming (21) examined the editorial attitude and news coverage of teachers' salary problems in nine high-circulation newspapers and 13 high-circulation magazines for the years 1931, 1941, and 1951. In general, he found that more space had been given to reports favorable to salary increases than to reports opposed to such increases, particularly in 1951. Simpson (67) raised basic questions not yet answered by research on salaries: (a) In seeking to devise a salary policy, what use of the school dollar will best promote the educational growth of boys and girls? (b) What use of the school dollar will promote the best feeling and the best spirit of teacher usefulness in the total work of the teacher in the school? (c) What use of the school dollar will best yield teacher productivity?

Salaries of Administrators

Salaries of administrative and supervisory personnel in 1952-53 were reported by the NEA Research Division (50) for six classifications of urban districts. Hubbard (31) expanded the section of the report dealing with the secondary-school principals. Since the sample covers only urban school districts, and differences in job complexities of administrators in schools and school districts of different sizes must be considered, over-all medians or means are not particularly useful.

A seeming lack of any definite pattern in regard to the salaries of school administrators was noted by Brown (9) and the New York State Educational Conference Board (57). Possibly as a consequence of this observation, two formulas for determining administrative salaries have appeared during the last three years. Haisley (27, 28) undertook the development of formulas for the chief school executive and second-line administrative officers on the basis of what he believed to be a reasonable relationship between the salaries of the teaching staffs and the salaries of the administrative staffs. In the case of the chief school executive, he added varying differentials to the salary the individual would be receiving as a teacher. These were based on pupil membership, number of teachers employed, wealth of community, state and federal monies received by the district, and the like. Second-line administrators received differentials based upon size of school, time demands, and year-round service.

The New York State Educational Conference Board (57) used essentially the same technic in determining reasonable salary levels for building and district principals. The basic assumptions underlying both these studies

may be open to question, but the studies are significant as harbingers of a renewed interest in the salaries of school administrators. The formulas have been used by some school districts (5).

One of the most thoro treatments of the problems involved in arriving at a reasonable salary for school administrators was presented by Brown (9). Altho geared to the specific problems of the elementary-school principals in California, this study raised questions which could well be considered by both administrators and teaching groups studying salary problems.

Retirement Systems

The NEA Research Division and the National Council on Teacher Retirement (55, 56) prepared statistics on teacher retirement systems for 1951-52 and 1952-53. It was reported that over 1½ million members are participating in existing retirement systems, with \$3 billion in assets paying over \$100 million annually to approximately 125,000 retired teachers at an average monthly retirement allowance of \$100.

The South Carolina Education Association (68) and the Texas State Teachers Association (71) compiled comprehensive summaries of state retirement plans in 1953. For each state, these data were summarized: (a) percent of salary members are required to contribute, (b) amount of contribution made by the state, (c) credit granted for service prior to the enactment of the retirement plan, (d) credit granted for teaching service in other states, (e) age and service requirements for receipt of normal retirement benefits, (f) physical disability provisions, (g) average monthly retirement payments received by the teachers, (h) years of teaching service on which the amount of retirement teachers receive is based.

Because of federal legislation enacted in 1954, the problem of coordinating retirement benefits in existing state plans with federal social security is the most important single issue in the field of teacher retirement at the present time. The NEA Research Division (39, 46, 54) provided a summary of the legislative steps necessary for achieving such coordination, presented a set of principles for the guidance of state educational organizations contemplating such action, and attempted to answer basic questions that might arise before and during the process of coordination. The most comprehensive of these studies (39) included several sample formulas which illustrated the comparative advantages enjoyed by teachers under nonintegrated state systems and under state systems coordinated with social security. Plans in seven states which have adopted a coordinated social security and state retirement plan were described and evaluated.

Clifford (12, 13, 14) discussed several fundamental issues relative to teacher retirement that will have to be faced within the next few years and reviewed legislative action on teacher retirement in 1953, drawing from that review five trends: (a) coordination of social security and

state retirement systems, (b) inclusion of death or automatic option benefits in state retirement systems, (c) increase of allowances for persons retired under old laws, (d) increase in the amount of salary upon which retirement deductions are based, and (e) permission for employment in school work after retirement without loss of benefits.

Legal Status of Teachers

The NEA Research Division (51, 52, 53) issued yearly reviews of court cases involving teachers. As usual, nearly one-third of the cases decided in each year involved tenure. In general, these reports covered decisions relating to the status of teachers in the areas of qualifications and appointment, salary, compensation for personal injuries, retirement, liability, and other relationships with pupils. Another series of NEA Research Division publications (47, 48, 49) reviewed court cases involving the legal status of pupils. Because the greatest number of these cases involved pupil injuries, the reports provide an up-to-date interpretation of the liability of teachers. Other topics covered, such as admission, attendance, and transportation, will be particularly interesting to school administrators.

Garber's *Yearbook of School Law* (23, 24, 25) reviewed significant court decisions dealing with school law. Three subsections—liability of employees, working conditions of teachers, and the teacher and corporal punishment—apply directly to the legal status of teachers.

Specific legislative action involving teachers in each of the 48 states was summarized by the NEA Research Division (42, 43, 44, 45). These reports included all actions by state legislatures relating to certification, tenure, contracts, salaries, leaves of absence, and retirement. Other topics covered are pupil personnel, general administration, and school finance.

In a series of articles, Cohler (16) presented guideposts for teachers in protecting their legal status while working with pupils. He dealt specifically with the teacher-pupil relationship and developed principles based upon court decisions that are generally applicable in all states. Garber (22) presented general principles of school law based on statutory and constitutional enactments and court decisions. Kramer (36) edited a discussion of personal injury litigation in school cases and the control of pupil conduct by the school. Articles by Remmlein (61) and Tieszen (72) developed general legal principles for second-line school administrators. These must be interpreted in the light of specific state school laws.

Social Status of Teachers

Reviews of research on the social position of teachers were provided by Brookover (8) the editors of *The Year Book of Education*, 1953 (29), and by Richey (62). These reports indicated that public-school teachers

are most commonly identified with the middle class in society, that their origins in the social classification are somewhat lower than middle class, and that the social status of the teacher tends to rise as the grade level taught becomes higher.

Most research studies reported during the last three years have attacked the problem from two points of view: (a) What is the social origin of students who select teaching as a profession? and (b) Where do pupils and parents place teaching in a subjective ranking of various occupations?

Mueller and Mueller (37) found, in a group of students at one state university, that those from higher socio-economic levels tend to select the arts college whereas the school of education attracts a disproportionate number of the middle groups. With an index number of 100 representing a proportionate share of any group, the occupational backgrounds of families of students in the school of education were as follows: professional, 92; proprietors, 92; dealers, 95; clerks, 110; farmers, 117; all workers, 112.

Richey, Phillips, and Fox (63) found that Indiana high-school students in rural communities attached the most prestige to the occupations of physician and lawyer. Out of 18 occupations ranging from physician to bootblack, the occupation of farmer ranked 3; college professor, 6.5; high-school teacher, 10; and elementary-school teacher, 13 (below secretary and bookkeeper). On the same scale, high-school students in urban communities ranked physician 1; lawyer, 2; college professor, 3.5, tied with registered nurse; high-school teacher, 8; and elementary-school teacher, 11.5, following secretary and tied with farmer. As a caution to future research workers in this area it may be noted that those who had definitely decided to become teachers ranked both elementary- and high-school teachers higher than those who were undecided or who had definitely decided not to teach. Anderson (2) defined four social classes in Iowa and found the prestige accorded the teaching profession by all four social classes was moderately high, altho parents of the lower class rated certain mechanical occupations most highly suited for their sons and certain clerical occupations most highly suited for their daughters.

An indication that teachers are still expected to behave like Caesar's wife was given by Cobb (15) who obtained opinions of high-school seniors concerning teachers. Thirty-seven percent agreed with the statement that teachers should not smoke; 57 percent thought they should not drink; 34 percent agreed that teachers should not marry during the school term; and 75 percent agreed that teachers should go to church regularly.

Bevans (6) reviewed the research on and undertook a study of the current social position of elementary-school principals. Because of the pivotal position the administrator occupies in interpreting education to the community, more research of this kind is needed.

Edwards (17) reported the socio-economic status of a group of male classroom teachers in Iowa. He found that the teachers' parents had generally been of lower middle class status, and that the teachers in the 50-

and-over age group tended to come from a higher level of that class than did those in the under-35 age group. The relatively low income and the frequent changes of teaching position contributed to a standard of living comparable with that of the lower middle class. Teachers' marriages were substantially more stable than those in the general population; but the birth rate in teachers' families was substantially below that in families in the general population.

Graetz (26) studied males who had graduated from a teachers college during the period 1932-1946. He found that large numbers of these had left the teaching profession, principally because of low salary, interest in other work, limited opportunities, and dissatisfaction with the administration. "Idealistic" reasons were predominant among those given for staying in the profession. An analysis of the salaries of the men surveyed show that those who had remained in teaching were receiving lower salaries than those who had never taught or who had left teaching. Fortunately the group of men remaining in the profession included its proportionate share of individuals with high grade-point averages and a record of extensive participation in extracurriculum activities.

A report on the status and trends of the ratio of men to women teachers in the public schools was given by Tompkins (73). The NEA Research Division (38) estimated that in 1954-55, at the elementary level, 14 percent of the classroom teachers were men; at the secondary level, 46 percent were men.

Characteristics and Attitudes of Teachers

Altho, as Vernon (75) pointed out, the characteristics of teachers are as diverse as those of any other occupational group and attempts to generalize for the profession as a whole must be handled with caution, those traits most often found in or associated with the profession are determinants of status. Vernon's review of research in this area noted the limited value of many of the studies. Traits are considered as entities within each personality, in contrast with contemporary psychological theory, simply because a more fruitful approach has not been isolated.

Traphagen (74) studied a limited sample of students at the University of California who had chosen teaching as a profession before entering college. Two groups were set up, based on the retention or rejection of their original vocational choice during their college careers. The *Strong Vocational Interest Blank for Men* was administered to both groups. Primary interests in "sales," "verbalistic," and "executive" discriminated positively for the rejection of a teaching career; replication would strengthen the force of these findings. The study also indicated that those who rejected teaching had greater aspirations for prestige, income, and professional recognition. Somewhat similar conclusions were reported by Jones and Gaier (34) who compared teacher, preteacher, and nonteacher

groups with respect to the degree of authoritarianism present in their beliefs and attitudes. No significant differences appeared in this respect, but an interesting concomitant finding was that the teacher and preteacher groups had lower levels of aspiration in terms of salary 10 years hence than did the nonteacher group.

Wolfe and Oxtoby (79) reported that students majoring in education compared unfavorably on psychological test scores with students majoring in other areas, both in the case of students recently graduated with the bachelor's degree and in the case of students recently enrolled in graduate school. Of the top fifth of a large number of graduate students, 17 percent were majoring in education and the remainder in other areas; but of the bottom fifth, 46 percent were majoring in education. The sampling process, while perhaps as accurate as practicable, nevertheless left something to be desired; however, other similar findings were reported. At all undergraduate levels, freshman thru senior, the percent of education majors equaling or exceeding the critical score on the *Selective Service College Qualification Test* was lower than the percent of majors in any other area examined; the other areas were general arts, humanities, social science, business and commerce, physical science and mathematics, engineering, biological sciences, and agriculture (19). Disturbed by these results, the Educational Testing Service (18) rescored a sample of the tests to give separate verbal and quantitative scores for each student. When either the quantitative score or the verbal score was used, as well as when the two were equally weighted, the education students received the lowest scores as a group. Finally the data for students in teacher-education colleges or divisions who had not designated themselves as majoring in education or planning to teach were examined separately by major field, the hypothesis being that these students would have raised the average of the whole education group if they had been originally included in that category, as perhaps they should have been. It was found that the group average was raised but slightly, since the students in this group were themselves substantially below the average for their respective major fields in almost every case. Nothorn (58) also found education students to be inferior to students pursuing work in other areas; on the other hand, Rosenberger (64) studied a group of high-school seniors intending to teach whose intellectual abilities compared favorably with those of students planning to enter other professions.

Amatora (1) reported the personality traits that teachers most commonly associate with their co-workers as measured by the *Kelly 36-Trait Personality Scale*. Ryans (65) summarized progress to date on the Teacher Characteristics Study of the American Council on Education. This study is directed primarily toward associating patterns of teacher behavior with competency and effectiveness and identifying those patterns of behavior most useful for prediction. Wandt (76, 77) studied teachers' attitudes toward pupils, administrators, and other adults.

Morale of Teachers

The morale of teachers is a reflection of their status as they see it. Altho much has been written about teacher morale during the past three years, there have been few research studies.

Pepper (59) studied teachers who had left the profession after teaching five years or less and found: (a) that most did not desire to return to teaching; (b) that only a small percent of the men ex-teachers would choose teaching again; (c) that most women ex-teachers felt teaching offered limited opportunities for marriage; (d) that the group did not consider the cultural opportunities of teaching to be as great as is generally publicized; (e) that the group felt that communities show only a mild interest in the housing problems of teachers and do not accept teachers as permanent members of the community; and (f) that the group felt restricted socially. The ex-teachers did say that they had enjoyed working with pupils and fellow teachers, and a majority believed that young people should be encouraged to become teachers.

Kaplan (35) studied the types of irritants faced by a group of experienced elementary-school teachers. Responses to his questionnaire indicated that their emotional reactions to the behavior of children accounted for more than 50 percent of their anxieties. Kaplan suggested that teachers might improve their mental health by acquiring a better understanding of and tolerance for the normal behavior patterns of children.

Becker (4) studied the relations of 60 Chicago teachers to parents, principals, and other teachers. Arnold (3) recommended attention to the problems of exchanging information, clarifying general policies, and developing a concern for the school program as a whole on the basis of his morale study of 560 Ohio teachers and principals. His findings indicated that morale was higher among elementary-school teachers than among secondary-school teachers.

A series of significant questions which were designed as testable hypotheses about the mental health of the school superintendent were presented by Spalding (69). Stoops (70) summarized some of the most significant studies conducted on the mental health of teachers. Scates (66) questioned the value of summarizing those conditions which teachers report as irritating or annoying and suggested a comparison of the characteristics of groups of teachers with varying levels of morale.

In general, morale studies have not yet reached the depth which is necessary if they are to be translated into significant action in school situations.

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CHAPTER VI

Personnel Problems at the College Level

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THIS chapter reflects the status of research in the area of college personnel. Educational journals abound in surveys of and opinions regarding the characteristics of college teachers and college positions; much less frequently do research studies providing objective bases for action or decision appear. The *Elementary School Journal* (7, 8) continued to publish abstracts of selected references on teacher education. Similarly, the *School Review* (58, 59) published abstracts of selected references on higher education.

Academic Freedom and Ethics

Statements of principles or concepts of academic freedom and ethics usually are of a deliberative character and represent the approaches of logic and philosophy rather than the approaches of quantitative research. However, the extent to which these principles are observed profoundly affects the character of research and instruction. Working thru its committees, the American Association of University Professors (1, 2, 46, 47, 48) prepared statements of the principles and practices of academic freedom. In addition to the definitive reports of the AAUP, several other treatments of large scope appeared (12, 37, 39, 72). Numerous discussions of academic freedom were published in the periodical literature, especially in *American Association of University Professors Bulletin*, *Association of American Colleges Bulletin*, *Harvard Educational Review*, *Journal of Higher Education*, and *School and Society*.

If staff members in institutions of higher education would enjoy academic and intellectual freedom, they would have to assume corresponding obligations and responsibilities in instruction and conduct. The ethical principles of psychologists were analyzed at length in the six areas: public responsibility, client relationships, teaching, research, writing and publishing, and professional relationships (5, 6). Related legal questions were discussed elsewhere (11, 28, 86). Ethical standards and codes of professional conduct were outlined for a variety of fields of specialization: public accounting, architecture, medicine, law, engineering, the American rabbinate, the Catholic clergy, the Protestant ministry, public-school teachers, organized labor, public employees, public service, and business management (45). A study of social and religious attitudes of university faculty members included factors of age, religious affiliation, rank, education completed, school association, and church relation (71).

The Role of Psychologists

Much of the research dealing with the values, attitudes, traits, and personality characteristics of college-level personnel was reported by divisions, committees, or members of the American Psychological Association. As may be expected, such research dealt largely with psychologists and the field of psychology. Sanford (68) pointed out the relationship of psychology to gross trends in our society and advanced the hypothesis that support of psychology is likely to vary with these trends: rapidity of change in institutions, degree of individuation encouraged, amount of leisure time available, standard of living, amount of interpersonal and intergroup communication, intellectual freedom, and increased urbanization. Rees (63) stated that the specialists within the many subdivisions of psychology evidence more interest in and make wiser contributions to the solution of national and world problems than any other group of social scientists, and cited the work of psychologists with the World Federation for Mental Health. Bingham (21) emphasized that, while psychologists function as scientists, technologists, and practitioners, the role of the psychological scientist is primarily in systematizing and generalizing about the facts of behavior. Finch (29) described the opportunities for psychological research in service programs and emphasized that the psychologist should stick to psychological research, thus making certain that the psychological cupboard is replenished and not left bare. Haggard (36) acknowledged that educational psychologists are concerned with such conditions in their field as a lack of agreement on basic subject-matter, appropriate training procedures, and relation of this field to other disciplines, but also maintained that such conditions will be alleviated when educational psychologists take more advantage of the fact that they are in a strategic position to make fundamental contributions to the general understanding of human behavior as well as to educational theory and practice.

A number of studies investigated the occupational, educational, and institutional relations of psychology, including educational psychology:

1. Orientation to the profession of psychology and its modern development (27).
2. Data on age, sex, military status, employment fields, functions, educational background, and professional income of psychologists, secured from questionnaire returns from 6578 members of the American Psychological Association (79).
3. Job opportunities in psychology: salary, employing agencies, duties, and qualifications (85).
4. Distribution by states of members of the American Psychological Association in 1950, and regional distribution of psychologists and certain population characteristics (24).
5. A study of psychologists who took the first degree at a Canadian university: number by universities of origin and decade, number and

percentage by decade and geographic distribution. Fifty-nine percent of these psychologists emigrated to the United States (57).

6. Data on faculty and students in departments with graduate programs in psychology (53), and departments with approved training programs in clinical psychology (54).

7. A study of 31 psychological clinics approved for doctoral training in clinical psychology and located in universities: organizational structure of the departmental clinic, personnel distinctions, teaching load, research provisions, promotional recognition, and desire for change (49).

8. Data for 387 teacher-education institutions: courses offered in psychology, degrees held by psychologists, membership in the American Psychological Association according to degree held, and APA divisional membership (73).

A number of analyses dealt with the values, attitudes, traits, and personality characteristics of psychologists. The Society for the Psychological Study of Social Issues presented a symposium on the profession of psychology and the social values of psychologists, covering the problems of scientific and professional responsibility, social pressures and the values of psychologists, expansion of professional psychology, ideology of professional psychologists, and the value context of psychology (70). In an investigation of the attitudes of psychologists, Shaffer (69) reported that they appear to be a group having considerable unity (as a whole neither intuitive nor objective), and that the training of the young psychologist seems to shape the direction of his attitudes, with later professional relationships reinforcing the particular attitude adopted. Based on a study of 14 psychologists and eight anthropologists considered eminent by their peers, Roe (64) found evidence of great sensitivity, somewhat aggressive characteristics, resistance to authoritarianism, and a marked interest in people. Clark (23) outlined APA plans for a study of the occupational, educational, and institutional relations of psychology. Specific investigations that were planned include a study of research psychologists, a survey of jobs in psychology in various communities, and a follow-up of holders of bachelor's, master's, and doctor's degrees in psychology.

College Teacher Supply and Demand

A number of studies in the preceding section dealt with the supply of and demand for professional personnel in the fields of psychology and educational psychology. A broad treatment by Klapper (44) emphasized that any candidate for a college position is interested in a number of social factors affecting his status: opportunities for professional growth, professional status of his closest associates, instructional program, academic or intellectual freedom, salary and rank, method of making appointments, tenure, retirement provisions, size and character of the teaching load and other duties, and sabbatical leave.

Supply-demand problems were represented in discussions of the future supply of scientists (22), a national roster of prospective college teachers (43), teacher supply and demand in the Negro college (51), and manpower problems of southern higher education (75). In an attempt to predict faculty requirements in the humanities and the social sciences for higher education up to 1970, Wellemeyer and Lerner (84) urged that we recruit competent young people of intellectual ability to prepare for college teaching and that college administrative staffs prepare for the increased enrolments by creating the necessary faculty positions.

Preparation and Experience

Closely related problems of the instructional staff include rank, degrees, preparation, and experience. The NEA Research Division (55) reported the following data for 1953-54. Among 57,269 staff members of 596 institutions the degrees held were: doctor's, 40.8 percent; master's, plus at least one year of graduate study, 21.0 percent; master's only, 27.8 percent; and less than the master's, 10.4 percent. Among staff members preparation is closely related to rank. The frequency of the doctor's degree among the several ranks was as follows: professors, 71.4 percent; associate professors, 46.4 percent; assistant professors, 29.7 percent; and instructors, 11.0 percent. During 1953-54 the rank of 70,646 staff members in 623 institutions was as follows: professors, 26.8 percent; associate professors, 21.8 percent; assistant professors, 30.4 percent; and instructors, 21.0 percent.

To improve the preparation of the college teacher, several authors outlined a variety of plans, including internship, supervised teaching, and seminar discussion of instructional problems (9, 13, 30, 76, 78, 82). About half of the institutions supplying data for the NEA Research Division survey (55) have a policy of giving some financial aid to the staff member who is granted leave for further graduate study; the most common practice is to pay him full salary for one-half year or half salary for a full year. Junior colleges are especially sensitive to their staff needs; selected references dealt with doctoral training for the junior-college teacher (38), staffing the community college (40), academic qualifications of junior-college faculties (60), professional preparation of the junior-college administrator (65), and general education for the junior-college staff member (74).

Promotion, Salary, and Tenure

Promotion, salary, and tenure are closely related factors in the professional advancement of the collegiate staff member (55). The most common policy is to designate a specific number of years of service before tenure is granted, regardless of the rank of the staff member. As a general rule, the staff member is not required to serve at a given rank a speci-

fied number of years before he becomes eligible for advancement to the next rank. In general, colleges and universities do not require staff members to advance from rank to rank in order to continue in the employ of the institution. Skill in teaching and graduate study are considered major factors contributing to promotion.

Selected studies dealt with instructional salaries in 41 selected institutions of higher education (4), a standard of occupational equivalence for academic salaries (33), salary-schedule provisions in degree-granting institutions (56), salary schedules and promotion policies (87), and salaries in teacher-education institutions (88). These surveys and discussions of salaries and salary schedules are difficult to summarize because of their fragmentary treatment, limited scope, and the definitions employed. The interested reader is referred to the sources. With respect to tenure, important articles were the 1951, 1952, and 1953 reports of the AAUP (46, 47, 48), statements of principles formulated by the AAUP (1, 2), principles of tenure from the point of view of the psychologist (32), and a survey of tenure in the junior college (61).

Health and Retirement

With respect to the staff member's health, colleges and universities have not kept pace with the public schools. Only 290, or 42.7 percent, of the 679 responding institutions in 1953-54 had in operation a policy covering payment of salary during the illness of an instructional staff member (55). Just over one-half, or 50.7 percent, of these institutions of higher education had a policy of giving some financial assistance to the staff member who undertakes further graduate study. Ninety-six, or 14.2 percent, of these colleges and universities had no policy governing the retirement of teaching personnel. Of 678 reporting institutions, 247 participated in some kind of state or municipal retirement plan, 218 had Teachers Insurance and Annuity Association contracts, and 407 included social security, with 70 depending upon this plan alone. At this writing the manner in which social security legislation, described by Greenough and King (34), will affect the retirement plans of many other colleges and universities thruout the nation cannot fully be foreseen. The literature included the AAUP statement of principles for academic retirement (3) and discussions of annuity programs (41, 42, 50, 52).

Rating the College Teacher

Much of the research on appraisal of instruction centered on identification of the characteristics of the effective college teacher (77, 83) and on use of checklists or rating scales to evaluate the effectiveness of instruction (10, 14, 15, 16, 17, 18, 19, 20, 25, 26, 31, 35, 62, 66, 67, 80, 81). Representative studies from the latter group are discussed in Chapter VII of this issue of the REVIEW.

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CHAPTER VII

The Measurement and Prediction of Teacher Efficiency

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FROM the number of papers published during the last three years, it appears that interest in the measurement and prediction of teacher efficiency has continued and possibly has increased. Besides the many research studies reported in the literature, there are many critical papers assessing what has been done and suggesting new approaches. Levin (56), for example, found three sources of inconclusiveness in research on teacher competence: (a) poor questions, that is, questions that cannot be answered; (b) indefinite meanings for competence; and (c) lack of a conceptual framework or theory guiding the research. He stated that facts must not be summed up indiscriminately, that the criteria should be narrowed, and that relationships should be sought for each criterion independently.

Orleans and others (63) proposed that we start with pupil growth and increase the accuracy of our measurement there by controlling variables other than teacher performance which may affect pupil growth, thus isolating the influence of a particular teacher and the influence of particular behaviors. Teachers and pupils might then be classified and goals defined. Papers by Crow (26), Gage and Orleans (38), and Rabinowitz and Travers (66) reviewed problems in the field of teacher evaluation and suggested guiding principles.

Criteria of Teacher Efficiency

Increased attention was given during the last three years to the criteria of teacher effectiveness. Remmers and others (68, 69), acting as a committee of the American Educational Research Association, presented one approach to this problem. Anderson (9) studied the agreement among several criteria. He found that different criteria gave different results; for example, evaluations based upon pupils', teachers', and supervisors' ratings and those based upon measures of pupil growth and achievement were not significantly correlated.

Ryans and Wandt (75), as a part of the Teacher Characteristics Study, investigated the uni- or multi-dimensionality of the criterion. Trained observers studied 275 classroom teachers using a specially devised classroom observation scale. The authors suggested that teacher personal and interpersonal behavior in the classroom can best be described in terms of several major dimensions, or clusters, of qualities that tend to overlap and to be correlated positively. The research relating to teacher competence based on the criterion of measured pupil change was reviewed by Acker-

man (1), who concluded that the results have been contradictory and inconsistent.

Orleans and others (63) stated that the basic problem should be recognized as the prediction of what kinds of teachers will be effective with what kinds of children in promoting growth toward what goals.

Characteristics of Successful Teachers

The search for behaviors, qualities, or characteristics thought to be associated with teacher competency has continued. Ryans and Wandt (75), in the study described above, identified the following factors of teacher behavior: tendency to be sociable, businesslike, reactive, tolerant, and pleasing. In addition they identified one factor of pupil behavior, tendency to participate, which was linked with certain teacher behaviors.

Hearn (47), in case studies of 77 teachers, found skill in human relations to be important. Cook (23) found that teacher attitude toward children correlated significantly with teacher-pupil relations. Reed (67) found a relationship beyond chance expectancy between the teacher's effectiveness in the classroom as evaluated by the students and that aspect of the teacher's personality which permits him to be an accepting person. Anderson (10) found high teacher morale related to high pupil achievement. Erickson (31), from a factor analysis of teaching ability considered the following to be related to teacher efficiency: (a) positive character, in contrast to immature dependent character; (b) Bohemian attitude, in contrast to practical concernedness; and (c) well-controlled character stability.

Montross (62) found positive correlations between certain objective measures of temperament, such as speed of tapping, reaction time, fluency, and right- and left-hand coordination, and teacher success. Page and Travers (64) found a triad of *Rorschach* patterns associated with patterns of behavior considered desirable by supervisors. Simpson, Gaier, and Jones (77) concluded that resourcefulness is a function of attitudes and habits of applying existing knowledge and skills in practical situations rather than a function of teacher knowledge and information. Schultz and Ohlsen (76) found that outstanding student teachers were creative and enthusiastic, had genuine interest in students, and organized their work well.

Gross (42) found various items of personal, training, and experience data related to teacher success in 213 Catholic schools. Adaval (2) found that India's teachers with advanced degrees showed knowledge superior to that of teachers with lesser degrees. Teachers with experience surpassed trainees. Allman (3) found prospective teachers superior to other students in such basic competencies as mental ability, reading comprehension, and achievement in elementary-school subjects. Somewhat more detailed surveys were made by Frutchev (36) and Travers and others (78).

Measurement of Teacher Efficiency

Interest in the development of better measures of teacher efficiency continues. Among the more general discussions, Parent (65) wrote of the history of merit rating, and Riesman (70) thought that as long as teachers teach for social status rather than to help children, they will be poor teachers. Grotke (43) found professional distance related to teacher evaluation, and Guthrie (45) found little relationship between research productivity or teaching efficiency and the evaluations of teachers made by college administrators. Barsotti (12), from a study of the reporting of unsatisfactory teachers in the San Francisco area, made recommendations for improvement of the reports.

Rating scales, in one form or another, received extensive attention. Hearn (48) described a rating scale developed at Stanford University. Gragg (39) described the *Ithaca Revised Teacher Rating Plan*. Bendig (15) described work on a revision of the *Miami Instructor Rating Sheet*. Kessler and Hosley (51) constructed five-point rating scales for evaluating nursery-school teachers. They found these, under the conditions in which they were used, to correlate .71 with ranks assigned by supervisors.

Berkshire and Highland (18), Harding and Long (46), and Ryans (73) recommended the forced-choice rating scale. Berkshire and Highland concluded from a study of such a scale that it is probably better to combine with the forced-choice rating procedure some of the more conventional rating forms. A study of the various instruments used for teacher competency appraisal was made by Grim, Hoyt, and Mays (41). Daval and Chatterjee (27) found, with carefully constructed rating scales, a high agreement among those who assess the abilities of trainees in a teacher-education institution. Guelzo (44), and Hobson and Schlenk (49) reported plans for evaluating military instructor training.

A number of tests of qualities or characteristics of teachers were proposed. Among these was the *Minnesota Teacher Attitude Inventory* which has been subjected to extensive study. Leeds (54), using "expert" ratings as the criterion and ratings by principals and students, found that the ratings of principals and "experts" were more closely in agreement than either of these when compared with pupil reactions. He concluded that pupil ratings make a unique contribution to teacher evaluation.

Wrightstone and others (86) used sociometric technics to study and improve intra-staff acceptability of teacher isolates. They found a close association of the data thus secured with teacher popularity. Jarecke (50) explained the construction of a teaching judgment test to evaluate teaching success. From a study of 41 and 55 teachers graduated from the University of West Virginia with 1 to 15 years of experience he concluded: (a) that teaching experiences seem to have a connection with teaching success, (b) that some unnamed factors as measured by the *Bernreuter Personality Inventory* affect teaching success, (c) that scholastic ability as measured

by a master's examination and the teaching judgment test seems to be related to teaching success, (d) that the teaching judgment test seems to have some predictive value, and (e) that forced-choice ratings appear useful.

Evans (32) described the construction and use of a test to measure interest in teaching. Grim and Hoyt (40) described two instruments: the *Student Reaction Inventory* and the *Teacher Characteristic List*. Valenti (80) described and reported the use of an instrument to measure the attitudes of teachers and administrators toward the social role of the teacher. Mitzel, Ostreicher, and Reiter (61) used teachers' drawings as measures of attitudes. Wandt (81, 82) described and reported the results from a teacher attitude scale. Four hundred and seventy-two replies were factor analyzed into attitudes toward pupils, administrators, and the adult nonadministrative school personnel. These attitudes are related to various aspects of teaching.

Pupil Evaluation of Teachers

There appears to be considerable interest in student or pupil evaluation of teachers. Much of this interest has been at the college or university level. Bendig (14) presented data showing that a significant relationship exists between students' rating of the instructor and the students' level of achievement in the courses. In another investigation (16) he found: (a) that students could reliably discriminate differences in teacher competency, (b) that there was no relation between student achievement and rating of an instructor's empathic attitude toward his students, and (c) that there were no sex differences present. In still another study (17) he found that 12 of the *Miami University Instructor Rating Sheets* gave reliable discriminations among instructors in introductory psychology.

Crannell (25) reported the construction of a 14-item instructor-rating device. Three clusters appeared which were named course result, personal interaction, and instructor effort. Downie (28) reported the construction of a 36-item student evaluation sheet on which poorer students tended to rate less favorably than superior students. Ruja (72) described the construction of a 90-item instructor-rating scale for which he reported a reliability of .969 by the split-half method and a validity of .903 secured by correlating rating with scores on two essays expressing likes and dislikes. Lamb (53) suggested questions for making student appraisals of courses and teachers in business education; Winier and Paul (85) discussed student evaluation of teaching procedures in biology. Teacher-pupil attitudes and their relationships to satisfaction with student teaching were discussed by Mitzel and Aikman (60).

Also reported were a number of studies of pupil evaluation of teachers at the elementary and secondary level. Amatora (5, 7), Fetterhoff (34), Flesher (35), and Williams (84) all found such evaluation worthwhile. Flesher (35) found that courses were invariably rated lower than in-

structors. Drawhorne (30) secured a correlation of .557 between two rating scales and the *California Achievement Test, Intermediate Form BB*. The general opinion was that as interaction between pupil and student teacher increased, so did teacher effectiveness. In a related study, Amatora (6) studied pupils and teachers in Grades IV-VII. The teacher and the pupils were rated on 22 scales by fellow teachers and classmates respectively. On more than half the scales, the similarity between teacher and pupil personality was statistically significant at the 1-percent level. Amatora (4) reported an additional study in which teacher rated teacher.

Leeds (55), in a study of teacher behavior liked and disliked by pupils, found that the proportion of negative reactions increased with the poorer teachers. Crane (24) asked 600 students in Grades I thru XVI to list the faults and merits of teachers. Amos (8) compared the accuracy with which Negro and white children can predict the teacher's attitudes toward Negro students.

Prediction of Teaching Success

A number of investigations pertained to the prediction of teaching success. Bach (11) found negligible correlations between student teaching grades and success in the field. Knoell (52) found positive but small correlations between word fluency and three different ratings of teaching success. Callis (20) found that the *Minnesota Teacher Attitude Inventory* correlated significantly with ratings by observers and by students, but not with ratings by principals. Ferguson (33) made a factorial study of the *Minnesota Teacher Attitude Inventory*. Downie and Bell (29) found significant correlations between the *Minnesota Teacher Attitude Inventory* and scores of *The American Council on Education Psychological Examination*, grade-point average, and grades in courses in education.

Carlile (21) found that grade-point average correlated best with student teaching grades. Mitzel (59) found interest factors predictive of teachers' rapport with pupils. Ringness (71) found certain attitudes predictive of teaching success, particularly interest in a subjectmatter field. Charles (22) reported the use of projective technics in the selection of teachers. Beamer, Pender, and Parton (13) found that home economics teachers and students have definite and similar interests and aptitude patterns.

Michaelis (58) found that none of the scales included in the *Minnesota Multiphasic Personality Inventory*, the *Heston Personal Adjustment Inventory*, and the *Minnesota T-S-E Inventory* had a significant relationship to the rated success of university graduate students enrolled in elementary-school student teaching. Tyler (79) predicted teaching success from personality inventories.

Resumés of research were presented by Bowers (19) and Fulkerson (37). Ryans (74) also reported on some later investigations of teacher personnel. Waters (83) presented an annotated bibliography of publications related to teacher evaluation.

Needed Research

What may be described as the philosophy or strategy of research in this area is discussed in two reports (68, 69); additional suggestions for needed research may be found in a third publication (57).

In summary, the following generalizations would appear warranted: The amount of reported research relative to the measurement and prediction of teacher efficiency seems to be on the increase. The research studies reported appear somewhat more sophisticated than those of a decade or so ago. There is much more awareness of the importance of criteria than a decade ago. There is much interest in student evaluation of teachers. The search continues for a single generalized pattern of qualities or behaviors that characterize good teachers, notwithstanding the possibility that differential studies of teachers teaching different subjects to different sorts of pupils, under different conditions, and for different purposes might prove worthwhile.

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